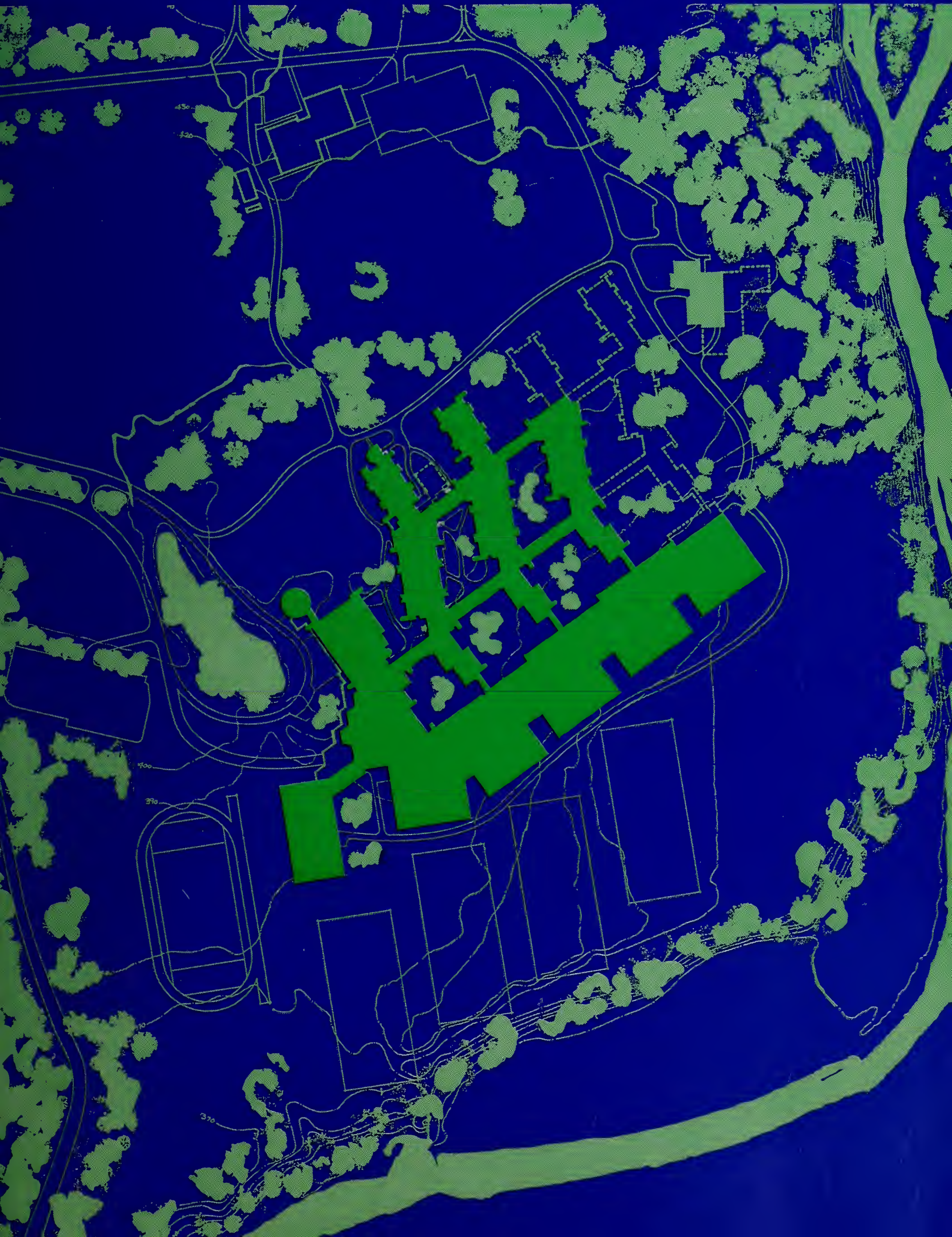
Erindale College
University of Toronto
1969-1970



Erindale College University of Toronto 1969–1970

Administrative Staff

University of Toronto

President	C. T. Bissell, M.A., PH.D., D.LITT., LL.D., F.R.S.C.
Vice-President and Provost	J. H. Sword, M.A.
Vice-President and Registrar	R. Ross, M.B.E., M.A.
Principal, University College	D. V. LePan, B.A., M.A., D.LITT.
Dean, Faculty of Arts & Science	A. D. Allen, B.SC., PH.D.

Erindale College

Principal	J. T. Wilson, O.B.E., PH.D., SC.D., LL.D., F.R.S., F.R.S.C.
Dean	E. A. Robinson, B.SC., PH.D.
Registrar	J. J. Rae, M.A., PH.D.
Librarian	H. L. Smith, B.A., B.L.S.
Administrative Officer	R. S. Rawlings, B.A.
Superintendent—Physical Plant	A. O. Miller
Director of Physical Education and Recreation	B. W. Bartlett, B.P.H.E.
Health Sevice	D. L. Robison, M.D. J. E. Rogers, M.D. V. Degutis, REG.N.

ERINDALE COLLEGE
UNIVERSITY OF TORONTO

CALENDAR ADDENDA 1969-70

Revised as of September 4, 1969

The following is a list of all changes to date. Please record them in your copy of the Erindale College Calendar.
* indicates the most recent changes.

ANTHROPOLOGY: Page 35 & 54	Delete ANT 242E This course will not be offered in 1969-70
CHEMISTRY: Page 37 & 57	For CHM 120 change Co-requisite to MAT 135/MAT 110FE & MAT 120SE
ENGLISH: Page 39	Insert (2) after ENG 100, 101, 102 Insert (3) after ENG 202, 205, 206 Change 2L to 3L after ENG 202, 205, 206, 210
GEOGRAPHY: Page 41	Insert (3) after GGR 103FE and GGR 104SE Insert 1T (one-hour tutorial) for GGR 301SE
GEOLOGY: Page 42	Insert (3) after GLG 100
GERMAN: Page 42 & 69	Delete the Co-requisite for GER 140 Insert (2,3) after GER 140 Insert (2,3) after GER 121
HISTORY: Page 43 & 71	Change the titles of the following courses: HIS 200E to "History of the United States 1607 - 1968" HIS 301 to "Canadian Politics and Parties since 1867"
*	NOTE: HIS 202E will not be taught in 1969-70. HIS 302E may be taken instead with the permission of the instructor.
ITALIAN & HISPANIC STUDIES - ITALIAN: Page 44	Insert (3) after ITA 100 Insert (2,3) after ITA 140E
* - SPANISH: Page 73 & 74	NOTE particularly: SPA 140E and SPA 160E will be given in English. It is not necessary to take a Spanish language course.
MATHEMATICS: Page 46 & 78	Insert "Not available to students who have taken Mat 200/210" after MAT 244F
PHYSICS: Page 48 & 81	For PHY 211E change the pre-requisite to PHY 110 For PHY 310 delete the Co-requisite PHY 211E For PHY 311 change the Pre-requisite to PHY 210, and change the Co-requisite to PHY 310

continued over . . . . . .

ERINDALE COLLEGE - CALENDAR ADDENDA Revised as of September 4, 1969 - Page 2

POLITICAL ECONOMY - ECONOMICS: Page 49 & 84	Insert (3) after ECO 100 Note: ECO 323 will not be offered in 1969-70
PSYCHOLOGY: Page 51 & 88	(PLEASE NOTE: There are no Pre-requisites for any Psychology courses.) Change PSY 212ES to EF Change PSY 213EF to ES Change PSY 214EF to ES Change PSY 215ES to EF PSY 216E (Note: Delete the letter Y) For PSY 216E change the hours of instruction to 1L and 2P.
SOCIOLOGY: Page 51 & 90	Delete SOC 302 (See additional course below)

NEW COURSES NOT PREVIOUSLY LISTED:

MICROBIOLOGY

MBL 310	Introductory Microbiology Pre-requisite: First Year Biology, Botany or Zoology course. Available to Third Year students only.	2L 3P

NOTE: This Microbiology course will be offered in 1969-70 only.
In 1970-71 MBL 220 will be offered,
Pre-requisite: BIO 100/120
Co-requisite: CHM 221

RELIGIOUS STUDIES

REL 230E/130E	The Roles of Religion	2L 1T

SLAVIC LANGUAGES & LITERATURES

SLA 100 (2,3)	First Year Russian Pre-Requisite: None Co-requisite: None	3T 2P

SOCIOLOGY

SOC 300 (2)	Social Stratification Pre-requisite: One Sociology course

Registrar's Office
Erindale College
University of Toronto

Erindale College Faculty 1969–1970

Anthropology	Professor A. Mohr, A.B., PH.D.
	Mrs. R. Vanderburgh, M.A.
Astronomy	Professor J. R. Percy, B.SC., M.SC., PH.D.
Botany	Professor J. R. Harle, M.SC., PH.D.
	Professor P. F. Maycock, B.A., M.SC., PH.D.
	Professor P. V. Rangnekar, B.SC., M.SC., PH.D.
	Professor G. R. Thaler, B.SC., M.SC.
Chemistry	Professor D. R. Clark, B.SC., PH.D.
	Professor J. J. Rae, M.A., PH.D.
	W. Reed, B.SC., M.SC., PH.D.
	Professor E. A. Robinson, B.SC., PH.D.
	Professor I. W. J. Still, B.SC., PH.D.
	S. P. Tyfield, B.SC.
Classics	Professor R. L. Beck, B.A., M.A.
	Professor T. G. Elliott, B.A.
	Miss C. I. Reid, B.A., PH.D.
Economics	Professor M. J. Hare, B.COMM., C.A.
	Professor G F. McGuigan, B.A., M.A., PH.D.
	Professor L. Waverman, B.COM., M.A.
English	T. H. Adamowski, B.A., M.A.
	Mrs. S. S. Hole, B.A., M.A.
	D. I. Lancashire, B.A., M.A.
	Professor S. P. Rosenbaum, M.A., PH.D.
French	Professor C. Cloutier-Wojciechowska, L. ÈS L., DIP. D'E. SUP., D. DE L'U
	P. R. Findlay, B.A., M.A.
	Mrs. M. Raine, B.A., M.A.
	J. Yashinsky, B.A., M.A.
Geography	A. R. Byrne, B.A., M.A.
	Professor K. Hewitt, B.A., M.A., PH.D.
	Professor D. F. Putnam, B.S.A., PH.D.
Geology	Professor D. H. Watkinson, B.SC., M.SC., PH.D.
German	W. Meyer-Erlach, B.A.
History	Professor W. C. Berman, B.A., M.A., PH.D.
	M. Dafoe, M.A.
Italian	L. T. McCormick, B.A., M.A.

Mathematics	Professor P. H. H. Fantham, M.A., D.PHIL.
	Professor J. E. LeBel, M.A., PH.D.
	Professor M. Mather, B.A., PH.D.
	Professor S. M. Trott, B.SC., M.A., PH.D.
Philosophy	Professor J. V. Canfield, B.A., M.A., PH.D.
	Professor W. J. Huggett, M.A., PH.D.
	Professor A. Rosenthal, B.A., M.A.
Physical Education	B. W. Bartlett, B.P.H.E.
Physics	Professor P. P. M. Meincke, B.SC., M.A., PH.D.
	P. H. Schuepp, PH.D.
	Professor H. W. Taylor, M.SC., PH.D.
	Professor D. C. Tozer, B.SC., PH.D.
	Professor J. T. Wilson, O.B.E., PH.D., SC.D., LL.D., D.SC., F.R.S., F.R.S.C.
Political Science	Professor J. Barros, A.B., M.I.A., PH.D.
	D. H. Gardner, B.A., M.A.
	Professor A. A. Kontos, M.A., PH.D.
	Professor B. Kovrig, B.A., M.A., PH.D.
Psychology	Professor T. M. Alloway, B.A., M.A., PH.D.
	D. M. Keller, B.A.
	Professor I. M. Spigel, M.A., PH.D.
Sociology	A. M. Bennett, B.A., M.A.
	Professor W. E. Kalbach, B.A., M.A., PH.D.
	A. T. R. Powell, B.A., M.A.
Spanish	Professor J. F. Burke, B.A., M.A., PH.D.
	Professor E. G. Neglia, B.A., M.A., PH.D.
	O. Hegyi, B.A., M.A.
	Mrs. M. J. Scarth, B.A., M.A.
	Miss J. Webster, B.A., M.A.
Zoology	Professor G. K. Morris, B.S.A., M.A., PH.D.
	Professor R. C. Plowright, B.A., M.A., PH.D.
	Professor P. J. Pointing, B.SC., PH.D.

Message from the Principal

Erindale College is happy to have been chosen to extend the presence of the University of Toronto towards the west. We enjoy the beauty of the Credit River Valley and are grateful for the warm welcome given us. Our preliminary buildings were ready on time and much larger ones are now under construction. Already we have modern facilities including an excellent library, science and language laboratories, a modern computer, a small television studio which is chiefly used in conjunction with the latest projection equipment to give improved live demonstrations. We have our own cafeteria, book store, health service and a free bus service which supplements public transport and enables students to use the facilities on the St. George campus. We have some athletic facilities and rent others as needed to accommodate our excellent college teams and to provide recreation.

The student body has perfectly interpreted the sense of excitement and responsibility associated with the founding of a new college. This beginning has presented a stimulating if formidable opportunity for the firstcomers. During 1967–68 all the students were freshmen, but they had freedom to initiate and innovate, with fewer constraints than on older campuses. It was rewarding to discover that men and women just out of secondary school could organize themselves efficiently and build the spirit that makes a college. In 1968–69 two years were taught and enrolment tripled but the same happy spirit has been maintained. Students are active members of college councils and committees. In this way they have part in planning residences and more extensive social accommodations. They operate their own social centre and play a major role in college dramatics, art shows, lectures and other activities. These have been a major feature of life at Erindale. There are many issues to be decided. Can the traditional barriers between commuter and residential students be broken down? Can each student have a private place to study? What part will language laboratories, computer-assisted instruction, and television play in teaching? How can we best arrange parking? We believe that by thinking boldly and carefully we can improve on conventional design and build a college for our particular needs without extra cost.

We cannot introduce these material innovations without considering what subjects to teach, how to plan courses and what fields of research to pursue. Faculty and student representatives have considered the Macpherson and Allen reports and adopted a new curriculum with greater freedom of choice for students. Our plan is similar to that adopted on the St. George campus, but we are investigating the possibility of teaching some courses in summer term. This would introduce flexibility and enable some students to take their long vacations in the autumn or winter.

In 1967–68 Erindale offered the first year of the general courses in Arts and Science and in 1968–69 the second year of these courses. In 1969–70 Erindale plans to teach three years. As the number of students grows, the variety of courses is increasing and Erindale College is pursuing those developments which best suit the needs and wishes of its students and faculty.

From the start in 1967–68 Erindale has been first choice of a majority of its students. We have been glad to welcome others who came because the older colleges had to restrict their enrolments. Such limitations of numbers have become necessary if the University of Toronto is to use its facilities in the most efficient way, but these constraints do not affect standards once the student has been admitted. Our academic staff are all full members of the University of Toronto faculty; the courses offered are of the same calibre; the examinations are of equal difficulty; and the same degrees are given. If anything, the students in this young college are particularly privileged in having the advantages of an open campus, new buildings, modern equipment, small classes, and an exciting atmosphere in which to work. These desirable conditions had their effect and the examination results at the end of the first year were equal to those on the St. George campus. Those who had come to Erindale as second choice had markedly improved their grades and showed no desire to transfer.

In recognition of our responsibilities to surrounding communities, the Division of Extension offers courses at Erindale to those unable to come during the day. In 1968–69, 367 students enrolled in these courses.

Most members of the staff engage in research and the faculty at Erindale are now deciding which fields of research to pursue at Erindale. The campus provides great opportunities for outdoor research and some special facilities are under construction. Some graduate students are with us already and many more will come next year when new buildings are open.

A good start has been made at Erindale College, and we look forward with anticipation to an active future.

General Information

Erindale College is the newest college of the University of Toronto. In 1969–70 students may enrol in the first and second years of the New Programme of the Faculty of Arts and Science and the third year of the General Arts and General Science Courses. The admission requirements are those of the University of Toronto; the same academic standards apply to all campuses. The calendar of the Faculty of Arts and Science for 1969–70 and the New Programme 1969 give a full account of the general regulations. The courses to be offered at Erindale College in 1969–70 are described in this calendar.

All members of the teaching staff at Erindale College are members of departments of the University and many of them also teach graduate and undergraduate courses on the St. George campus.

The College opened in September 1967. The new buildings are located on a 200-acre campus between the communities of Erindale and Streetsville, about a mile north of Highway 5 on the east side of Mississauga Road.

Full time students and those wishing general information about the College should address the Registrar, Erindale College, University of Toronto, telephone 828-5231. Those wishing information about evening courses should write or phone the Division of University Extension, 84 Queen's Park, Toronto 5, telephone 928-2393.

Erindale College has an administrative council called the Erindale College Council which holds open meetings monthly. Students have an elected council called the Students' Administrative Government of Erindale and an organization that promotes athletic and recreational activities – Erindale College Athletic and Recreation Association. In addition, there is an advisory body called the Principal's Council made up of representatives from the faculty, students and administration.

Facilities

A large undergraduate Library of about 70,000 volumes is available to supply the varied needs of students. This is supplemented by the facilities of the St. George Campus Library, from which books and periodicals may be borrowed by all Erindale College students.

The athletic and recreational facilities such as Hart House (men) and the Benson Building (women) on the St. George Campus are available to Erindale students. Students are entitled to play on the University of Toronto teams. An extensive athletic programme is organized at the College. There is a student centre on the Campus called the 'Colman House' which is administered by the Students' Administrative Government of Erindale.

Bus Service: In 1969–70, bus service will be provided to transport students between the College and the Islington-Bloor subway station, the Clarkson GO station and the St. George Campus.

A doctor is in attendance, and a registered nurse is on duty at the College at all times.

Admission Requirements

The Undergraduate Admission Circular, 1969–70 and the Calendar of the Faculty of Arts and Science contain the detailed admission requirements of the University of Toronto which are summarized below.
The approved Ontario Grade 13 subjects with their credit values are:

ONE CREDIT	TWO CREDIT	THREE CREDIT
Biology	English	Mathematics A & B
Chemistry	French	(two subjects)
Physics	German	
Geography	Greek	
History	Italian	
Music	Latin	
Art (both Music and Art may not be offered)	Spanish	
	Russian	
	Mathematics A or B	

Standing must be obtained in at least *four* Grade 13 subjects comprising at least *seven* credits and including at least two of English, another language and Mathematics A or B. The minimum Grade 13 average must be 60 per cent.

Students from Ontario secondary schools must also present the results of either aptitude or applicable achievement tests or both, of the Ontario Department of Education.

A candidate of mature age (25 years or older on October 1, 1969) who is a resident of Ontario may request special consideration, if he has a sound academic record and 60% at least in one Grade 13 subject. N.B. Applicants who have met all the above admission requirements will be eligible for selection but they should note that this does not guarantee their admission to Erindale College.

Applications for admission should be submitted on the prescribed form to the Office of Admissions, Simcoe Hall, University of Toronto, before June 1, 1969. Applicants desiring to enrol at Erindale should indicate *Erindale College* as their college of first choice on the application form. Application forms may be obtained at secondary schools or by writing to the Office of Admissions.

Marks for Grade 13 subjects written prior to 1969 and any music courses to be used for admission purposes must be submitted with the application.
A confidential report from the principal is sent directly from the school to the Office of Admissions.

Terminal Date for Applications for Admission
June 1, 1969

After students have accepted an offer of admission they are required to pay at least the first instalment of their fees to the Chief Accountant's Office, 215 Huron Street, University of Toronto. They must then register in person at Erindale College between September 15 and 20. Lectures begin Monday, September 22.

Summary of Terminal Dates

Applications for admission to undergraduate degree and diploma courses should be submitted as early as possible in the year for which the applicant seeks admission, and *not later than* the dates below:

i	April 1, 1969	Final date for applications to be considered for Early Admission. (Only current Ontario Grade 13 students are considered for Early Admission.)
ii	May 30, 1969	Offers of early admission to be sent to students.
iii	June 1, 1969	Applications for regular full-time courses.
iv	June 15, 1969	Final date for acceptance of offer of admission.

Schedule of Fees

This is a condensation of the section on Fees from the Arts and Science Calendar which sets out a complete fees schedule. Fees are subject to change by the Board of Governors.

Bachelor of Arts and Bachelor of Science

The academic fee includes the following fees: tuition, library and laboratory, examination, degree, physical education. Incidental fees include such things as Hart House (men), students' societies, athletics, health services, etc.

The first term instalment is due on or before September 22; the second term instalment is due on or before January 20. There is a late registration fee of $10 for students who register after classes have begun.

There is a supplemental examination fee of $10 for one subject and $5 for each additional subject for students in the day classes and the extension classes.

	FEES			INSTALMENTS	
	Academic	*Incidental*	*Total*	*First Term*	*Second Term*
Men	$470	$50	$520	$285	$238
Women	$470	$44	$514	$279	$238

Scholarships, Awards, and Bursaries

Erindale students, as members of the University of Toronto, are eligible for admission scholarships and bursaries awarded by the University, the Provincial Government, and other interested bodies. In addition, a number of awards has been established exclusively for Erindale students. Full details are contained in the Admission Awards Calendar, available at secondary schools or from the Office of Student Awards, Simcoe Hall, University of Toronto. A limited number of awards are reserved for non-Ontario students. Applications for all admission scholarships should be sent directly to the Office of Student Awards, and *not* to Erindale College.

Admission Scholarships:

Ontario Scholarship Programme: The Province of Ontario awards an Ontario Scholarship, worth $150, to all students who achieve an average of 80 per cent or better in papers worth seven credits, as required for the Ontario Secondary School Honour Graduation Diploma, and written in June of the year of completion of Grade 13. No application is necessary.

Awards open to Erindale Students:

The following awards are reserved for Erindale students, but applications should be made to the Office of Student Awards.

Erindale-Cooksville Lions' Club Centennial Scholarships: awarded to students entering first year from the geographical area served by the Club. *Total value*: $500.

Kinsmen Club of South Peel Centennial Bursary: awarded to a student from the South Peel area. Value: $500 per year for three years provided satisfactory standing is maintained.

Varsity Fund Scholarship: four annual awards, renewable if a 75 per cent average is maintained. Value: $300 for the first year and $500 for each of the two subsequent years.

Special Erindale College Awards:

A limited number of in-course special awards and bursaries is awarded by the Erindale College Scholarships and Awards Committee. Applications for these awards should be made through the Office of the Registrar, Erindale College. *Port Credit University Women's Club Award*: available to a mature woman student who is returning to education after an interruption in her educational programme. Value: $300.

Chreston-Macedonian Bursaries: awarded on the basis of academic standing and financial need. Two awards of $250 each.

Special Erindale College Award: awarded according to financial need of individual student.

Other Financial Assistance:

The Province of Ontario administers the Province of Ontario Student Aid Programme (O.S.A.P.), to assist Ontario students only. Application forms are available from the Registrar.

Division of University Extension

Detailed information about the Division of University Extension is contained in three brochures, DEGREE COURSES IN EXTENSION, EVENING AND AFTERNOON COURSES IN THE LIBERAL ARTS, and BUSINESS AND PROFESSIONAL COURSES.

All enquiries on these courses should be directed to Division of University Extension, 84 Queen's Park, Toronto 5, 928-2393.

Courses and Subjects

Students are referred to the Arts and Science Calendar 1969–70 for further details regarding the rules and regulations of the Faculty of Arts and Science. The following is not comprehensive and is intended only as a guide in selecting courses. If a student has any questions about the content and scope of certain subjects he should consult a professor in the subject, his academic counsellor (to be assigned) or the College Registrar.

First and Second Year Programme

In 1969–70 the New Programme will be introduced for first and second year students in the Faculty of Arts and Science of the University of Toronto.

No attempt is made initially in the New Programme to distinguish between Generalist (general) or Specialist (Honours) programmes – the degree eventually awarded will depend upon the subjects that make up each individual student's course of study. Thus a student on entry to the University no longer has to make an irreversible decision to be in Arts or Science or to follow a three or four year programme of study. These decisions can now be made at various points of a student's progress through the University in terms of new and developing interests and levels of achievement. It should, however, be noted that the flexibility and choice now available do not prevent a student with definite aims and developed interests from following them from the start. It is to be hoped that even students with well defined aims will take the opportunities offered by the New Programme to explore unfamiliar fields of knowledge.

In the *first year* students are free to choose any *five* courses (from those available to first year) provided that pre-requisites, if any, are satisfied. If a student anticipates the possibility of *Specialization* in a particular field in his higher years he should select at least one course in this subject in his first year. Particularly in selecting a first year programme students are strongly advised to consult an academic counsellor for advice.

In higher years, students may wish to choose programmes which will allow them to specialize in a particular discipline; they may combine two areas (e.g. Sociology and Psychology) or they may choose a set of courses which will allow them to be generalists in a particular field; e.g. science, humanities or social sciences. Students are urged to consult the professors asking them which courses would best fit their aims and which related courses they should take.

Students interested in qualifying for entry to the Faculties of Medicine or Dentistry should consult with the secretaries of these Faculties regarding the required courses. At present it would seem that for Dentistry and Medicine, Chemistry 120, Physics 110, Biology 100 or 120, English 100 (Dentistry only) are required in the first year. For Medicine two years of the New Programme are required and Chemistry 221 should be taken in the second year.

Qualifications for teachers' Type A certificate, College of Education, requires a four-year degree with the equivalent of eight courses in a major teaching subject. It is desirable that students get specific information from the Registrar of the College of Education. Circular 649 of the Department of Education describes the requirements. Students desiring to specialize in a particular subject should consult the "New Programme 1969", pages B-48 to B-57.

Detailed rules with regard to academic standing, passing, failing and supplemental examinations will be found in the Arts and Science calendar, 1969–70. Some of the more important regulations are:

To complete a first year programme you must obtain standing in five courses. You retain credit in any course you have passed. First year students are not permitted to take second year courses until they have completed their first year's programme or have standing in four first year courses with an average of at least 60%. A Student who has a term mark of at least 60% in a failed course in a first year programme will be permitted to write a supplemental examination in that course.

Third Year General Arts Programme

In third year General Arts, which will still be in existence in 1969–70, there will no longer be any group, sequence or subject of concentration requirements and students will be free to choose any five courses. However, departments will offer at least two courses in the subject in which students concentrated in second year. Students in third year must have an average of at least 55% in the five courses taken and at least 50% in each to obtain standing. Subject to departmental approval, students may take up to five courses in a particular subject.

Third Year General Science Programme

In third year of the General Science course, of the five courses chosen, not more than *two* must be non-science options and not less than *three* must be science options. The prescribed pre-requisites must be met and an equivalent course must not have been taken. Students in third year must have an average of at least 55% in the five courses taken and at least 50% in each to obtain standing. Subject to departmental approval, students may take up to five courses in a particular subject, provided they are science options.

Subject Abbreviations

ANT	Anthropology
APM	Applied Mathematics
AST	Astronomy
BIO	Biology
BOT	Botany
CHM	Chemistry
CSC	Computer Science
ECO	Economics
ENG	English
FRE	French
GER	German
GGR	Geography
GLG	Geology
GLL	Greek & Latin Literature in Translation
GRH	Greek & Roman History
GRK	Greek
HIS	History
HPS	History of the Philosophy of Science

ITA	Italian	PSC	Physical Science
LAT	Latin	PSY	Psychology
MAT	Mathematics	SOC	Sociology
PHL	Philosophy	SPA	Spanish
PHY	Physics	STA	Statistics
POL	Political Science	ZOO	Zoology

Anthropology

Anthropology is the study of human biology and culture and the relationship between the two. *Physical Anthropology* is the branch of the discipline concerned with biological matters and traditionally focuses on the evolution of man and his nearest primate relatives as revealed by fossil remains, and on the constitution physiology and variation of living populations. *Cultural Anthropology* is the study of the way of life of peoples throughout the world – their economy, social organization, religion, language, etc. It is customary to give particular emphasis to non-western, especially non-literate groups. From these data conclusions can be drawn about interrelationships of cultural elements, relationships to the environment and processes of culture change. Habitations, manufactures, food remains, etc. of groups no longer extant are investigated through *Archaeology* to reconstruct the cultures of the past and to trace their development from earliest times.

The Erindale Anthropology program offers the student the general background necessary for advanced academic training in the field. It will be the special concern of the faculty to introduce interested students to research methods of physical anthropology and cultural anthropology including archaeology and to incorporate them in the research programmes of the department.

Most anthropologists are employed as teachers or research workers in universities, in museums or by government and require higher degrees. The Erindale programme will be geared to give professionally oriented persons every possible assistance and advantage. For additional information on the field, see *Anthropology as a Career* by William C. Sturtevant; copies are available at the Erindale College Library.

Astronomy

Although the fascination of the skies is timeless, astronomy as a science has progressed very far in this last century. From a largely mathematical discipline, practiced by a race of inscrutables working in private observatories, it has developed into an integral part of our everyday life.

At Erindale College, two astronomy courses will be offered in 1969–70. Both are self-contained survey courses, employing a combination of lectures, discussion groups, laboratory exercises and evening observing sessions. The excellent facilities of the David Dunlap Observatory, the McLaughlin Planetarium, the St. George Campus Observatory and of Erindale College itself will be used.

Astronomy 100: This course has no pre-requisites or co-requisites, and is available to any student in any year of any programme. The student will acquire a clear picture of the nature of the universe, and of the role of astronomy in society and in the individual life. In addition, the philosophical and cultural values of science in general will be explored.

Astronomy 220: This course is available to any student who has already taken an introductory course in physics in university. The emphasis will be on the universe as a scientific laboratory: the laws of physics will be applied to explaining the behaviour of the universe. We hope in this course to generate some of the excitement of astronomy as a modern field of research.

As soon as possible, we intend to offer an advanced course in astrophysics which will be available to physical science specialists in their third or fourth year.

Erindale College offers no specialist programme in astronomy. However, a three or four year programme with specialization in physical science (with or without astronomy) would provide an adequate background for graduate studies in astronomy. Either of the courses offered provides the educated person with a detailed view of a representative and progressive science, and is particularly useful for the prospective teacher of science, mathematics, or geography in the schools.

Biology

See Botany and Zoology

Botany

The Botany programme is designed to provide the science student with a broad introduction to plant biology, suitable for a teaching career in high school and also for entry to graduate study in Botany. Many courses in this programme are shared between Botany and Zoology, so that a student specializing in biology will be well equipped to enter either field of study.

The programme includes plant anatomy and morphology, taxonomy and genetics. Cell and whole plant physiology and biochemistry play a significant role, so the student is strongly advised to include chemistry and organic chemistry in his programme of study. Courses are also available in areas such as biometrics and computer techniques, electron microscopy and radioactive isotope procedures, to provide a broad education in modern botanical research techniques.

Chemistry

Modern chemistry places a strong emphasis on an understanding of the properties and structures of individual atoms and molecules, and on using this knowledge to interpret and predict the changes that take place in chemical reactions. In addition to its importance in modern industry chemistry is having an increasingly important bearing on the other sciences, such as biology, the medical sciences, psychology, geology, metallurgy and astrophysics where increasingly an understanding of many phenomena relies on a knowledge of properties at the molecular level.

First and Second Year Courses

One basic course for scientists is given in first year (CHM 120). This should be elected by those requiring chemistry in connection with the other sciences and by those wishing to specialize in chemistry. This is also the appropriate course for students preparing for entry to the professional faculties (e.g. Medicine and Dentistry). A knowledge of chemistry at the Grade XIII level is assumed and Grade XIII Math A is a necessary pre-requisite.

Physical Science 100FE and Chemistry 101SE are specially designed for non-scientists to give insight into the scientific method and philosophical development of physical science. Little mathematics will be used.

In second year there are two courses CHM 220 and CHM 221. CHM 221 (Structure and Synthesis) is an integrated course that includes both organic and inorganic chemistry and treats structure and bonding in detail. This course is suitable for those intending to enter Medicine. CHM 220 (Statics and Dynamics) consists of basic physical chemistry including thermodynamics and chemical kinetics, and is more mathematical.

Intensive Training in Chemistry. The Chemistry Programme

There is a basic core of chemistry courses for a student wishing a well-rounded training in chemistry. In the first two years these courses, CHM 120, 220 and 221, when combined with courses in physics and mathematics, give a broadly based training in physical science with some emphasis on chemistry: in the 3rd and 4th years, there is opportunity for greater concentration on chemistry and for study in depth of chosen areas.

Students wishing intensive training in chemistry should take CHM 120, PHY 110, and a calculus course in first year. MAT 135 is particularly recommended, but any non-terminal first year calculus course is acceptable. As the fourth of the normal five courses, an additional science or mathematics course should be considered: note that a first year combination of one course in each of Chemistry, Physics, Mathematics and Biology gives a very wide freedom of choice in the sciences for subsequent years of study. As his fifth course, the student is encouraged to make a selection from outside the sciences; then if he chooses to concentrate in chemistry after first year, he will still have the opportunity to follow an interest in a non-scientific subject in the free optional course in each of the higher years.

The computer is playing an increasingly important role in chemistry, and an optional half course in computer programming, CSC 108Y is strongly recommended as an extra course for the first (or second) year.

The second year of the programme in chemistry consists of CHM 220 and 221, PHY 230E, and one full course of second level mathematics (MAT 235 is particularly recommended). The student who does not choose the whole of this prescription but who finds during his second year that he would like to concentrate on chemistry, is urged to seek advice as soon as possible, preferably before the end of his second year. Combinations of chemistry with other sciences such as biology and physics are possible and a student entering the 2nd or higher years with a serious interest in chemistry who finds that the published programmes do not fully meet his needs is urged to consult the Dean as early as possible.

Opportunities in Chemistry

The Chemistry programme is a very suitable preparation for those who wish to continue into graduate work, to teach chemistry in high school (Type A certificate) or to enter science-based industry. A graduate degree is essential for teaching at the college or university level, and is highly desirable for a research career.

Classical Studies

Classical Studies are concerned with the linguistics, literature, philosophy and history of Greece and Rome. For the linguist, Greek and Latin lay a solid foundation for the study of the Indo-European languages ancient and modern: Sanskrit, Persian, Armenian, Teutonic, Slavonic, Lithuanian and Celtic. Students and lovers of literature are introduced to early and often unsurpassed works in every *genre* which have contributed form, content, and critical standards to every European literature. The philosopher encounters the seminal ideas of European philosophy clearly and simply expressed. The political scientist observes a people, passionately interested in both the theory and practice of politics, who explored the possibilities of elitist governing groups, enlightened and unenlightened despotism, and democracy, singly and in a variety of combinations, in national, federal and imperial contexts, and on every scale from city state to "world empire". Students of religion discover a rich variety of religious experience, interesting in itself and for its formative influence upon Christianity and Islam. The historian, with an entire civilization before him from beginning to end, can compare it with his own, and can trace the evolution of a single great social experiment from its first creative phase, through its mature achievement, to its final period of consolidation – and obsolescence. Classical language, literature, philosophy, political experience, religion, law, art, architecture, and Euclidean mathematics are still factors in our lives, and our understanding of the present will be enhanced by some understanding of these formative influences from the past.

Students who do not seek to specialize in any of these fields may take any course in the Department for which they have the stated pre-requisite. It will be appreciated that advanced work in Greek and Latin can only safely be undertaken by those who have studied those languages in previous years. But an effort has been made to limit pre-requisites and to broaden choice. Courses in Greek and Roman History and Classics in Translation have no pre-requisites, and for the most part any course can be taken in any year.

Any student can combine the study of Greek, Latin, Greek and Roman History and Classics in Translation with a variety of other disciplines. Whether the student approaches the Classics in the original languages or in translation, he will have been introduced to intelligent people 'of another society' faced with, and trying to meet, basic and universal issues. He will have a better sense of what these issues are, and of possible responses to them. His study of Classical civilization will have given him new questions to ask of his own society, and a broader feeling for possibilities in present and future.

Computer Science

See Mathematics

Economics

See Political Economy

English

The study of English attempts to engage the mind, imagination and sensibility of the student in the literature of the English-speaking world, and in related literatures, both classical and modern. The sequence of English literature, from its beginnings (about the seventh century) to the present, constitutes a continuous tradition that reflects the vitality of an entire civilization – its political, social, religious, scientific, and cultural life – and, in addition, presents a permanent record of the ways in which the human mind and imagination have responded to recurrent problems and situations. At the same time, each age gives rise to its own peculiar problems. The literature of the past and the literature of our own day can cast light upon the present and indeed upon the future. Literary studies can provide us with a fuller knowledge of ourselves and our world and with deeper insight into the nature of human experience.

More particularly, the undergraduate study of English in this University prepares the student for more advanced work in the discipline, appropriate standing in the English Language and Literature Programme qualifying the student, unconditionally, for graduate study in accredited universities of this country, of the United States and of the United Kingdom. In addition, it prepares its students for a Type A certificate programme for secondary-school teachers, particulars of which can be obtained from The College of Education, for work in journalism and in the publishing field, and for positions in business and in various departments of government.

Students who seek to specialize in English may enrol in the English Language and Literature Programme in second year. This structured Programme contains a series of core courses that are required, together with a number of options; in the second year the core courses are ENG 210, 211, and 212 or 206, and the student may select two further courses either outside or within the Department's offerings. By the end of his fourth year a student in this Programme is required to have taken at least five courses outside the offerings of the Department of English. In each of the second, third and fourth years the student in this Programme will normally take at least three specified courses in English (or equivalents approved by the Department) and will have the opportunity to choose at least one course in any way he may wish, including additional courses in English.

Combined programmes will be provided in collaboration with other Departments in such fields as English and an ancient or other modern language, English and History, English and Philosophy, English and Psychology, English and Mathematics. Students should consult the Departments concerned for advice as to appropriate course combinations. Normally, in such programmes, the student will take two courses in each of the two disciplines in each of the second, third and fourth years, leaving one free option in each year. Appropriate standing in such combined programmes provides automatic qualification for double certification in Type A programmes of The College of Education.

Students who seek the opportunity either of acquiring a breadth of experience in a wide variety of disciplines (for example, ancient and modern languages, social sciences, physical sciences, etc.) or of focusing their studies upon two, three or more subjects (for example, English and History, or English and History and Sociology; English and Slavic Studies, or English and Slavic Studies and Philosophy, etc.) can devise many different programmes of study to suit their needs. English is a very appropriate subject for inclusion in such programmes, not only because the student has the opportunity to improve his writing skills in the essay work that each English course requires, but also because he is introduced to a humanistic approach to the civilization that is part of the Canadian heritage. The student in such more general programmes can select courses to suit his needs; he can of course elect only an occasional course in English; on the other hand he can, without entering the Programme in English Language and Literature, choose a larger number. By careful choice, such students, while continuing their studies in other disciplines, can qualify for entry to programmes for Type B certification, Intermediary Endorsement or even Type A certification in either one or two subjects at The College of Education. Students should consult The College of Education for details regarding the requirements for entrance to the various programmes of the College. It is with such students in mind that the second-year courses ENG 202–209 have been specially designed, and similar offerings, allowing for a continuation of a sequence, will be available in the third and fourth years. Students may also, under certain conditions, select courses numbered ENG 210 and above and should, in any case, consult the Department regarding their selection of courses.

Students who achieve at least B standing in the total English Language and Literature Programme are normally admitted, without condition, to Graduate Studies in English in this University. This is generally true of students applying for admission to graduate studies in other Canadian Universities, and in those of the United States and of the United Kingdom. Applications for admission to Graduate Programmes made by students who have chosen not to enrol in this Programme will normally be evaluated on the strength of the distribution of courses and of standing in the programmes taken. Conditions in certain courses at the undergraduate level may be imposed.

In 1969–70, students at Erindale College will be offered a selection of the general and specialized courses given on the main campus. Second-year students wishing to specialize may fulfill the requirements either by taking the additional necessary courses downtown or by making them up in their third or fourth years.

French

Erindale College offers a dynamic, contemporary French programme designed to anticipate the needs of Canadian students. Canada's current consciousness of its bicultural heritage and willingness to explore avenues leading to bilingualism have greatly influenced our pedagogical aims and methods.

For students wishing to pursue a program of study capitalizing on previous language training, and leading to advanced competence in French, we offer a basic course which emphasizes this aim. Our methods are based on a judicious use of the most modern laboratory equipment, coupled with personal participation in linguistic situations designed to inculcate and reinforce language habits.

The possibility of studying French as a language system is offered to second and third year students in courses embracing theoretical and applied linguistics.

The study of French literature has traditionally been closely related to the development of language skills. In our programme, the student who demonstrates linguistic competence can exercise a wide latitude of choice among purely literary courses, currents and *genres*, leading to an appreciation and understanding of French thought, art and culture. In these courses, the student will be made aware of the various critical approaches to literature: historical, textual, esthetic. The skills thus developed will be brought to bear on French-Canadian literature and culture as well.

For non-specialists, Erindale offers a series of courses in which works are read in the original French and discussed, at the discretion of individual sections, in either English or French. These courses are of great value to students in other disciplines desirous of enlarging their acquaintance with one of the world's great literatures, and could eventually be incorporated into a comparative literature programme.

There is great flexibility built into the programme, with extremely few pre-requisites and practically no co-requisites for most courses; in addition, individual examinations will provide course admittance in special cases.

Geography

Geography is a very old discipline dealing with the earth environment and with man's place in it. In essence, therefore, its efforts have been general and integrative. Throughout time, man's active curiosity about his environment has led him to explore the whole of the earth's surface and to locate and describe its various features and phenomena. Implicit in this curiosity is a desire to make use of the environment and to recognize and to appropriate its resources. Such knowledge, recognition and use of environmental resources is basic to man's existence and to the patterns of distribution of human populations and activities. Perhaps it is not too restrictive to say that the basic objective of Geography is to describe and explain the reciprocal relations of man and the environment, the results of which are given visible expression in the form and composition of the landscape.

Geography approaches its task in various ways. In common with the natural and social sciences it attempts to systematize or classify its data. It is interested in the sequential changes in the landscape and in the nature of change through time. But above all, it is interested in the spatial distributions, associations and interactions of terrestrial phenomena. It is hoped that through these approaches modern geography may contribute not only to total knowledge, but toward rational planning in an ongoing civilization.

It is recognized that students may come to Erindale without much knowledge of geography at all, while others will enter with a lively curiosity already sharpened and focused by an excellent high school experience. For the former it is recommended that they take Geography 100FE in order to obtain a background of ideas. The latter group, well prepared, will be accepted in Geography 101FE, 103FE and 105FE in the first semester, and may continue in Geography 102SE, 104SE and 106SE in the second semester. Students taking any of these courses will find it possible to take either a sequence or a specialization in the courses to be offered in Second Year in 1970–71. Geography 200FE and Geography 201SE are designed for those who may wish to specialize later in the field of Geography, while Geography 105FE and Geography 106SE may be taken by those wishing more generalized instruction.

The Third Year courses are offered without condition to those who have taken Geography 200 as it was constituted in 1968–69. They will also be available to other students with suitable background who have the permission of the person in charge.

Further adjustments in courses and sequence will be necessary in 1970–71.

Geography is offered at Erindale primarily as an interesting and important contribution to general education, and as a discipline worthy of study on its own merits. Geography may also be an approach to a worthwhile career.

Geography programmes are well established in Ontario Secondary Schools and there is a continuing demand for qualified teachers. Geographers also continue to find employment in many branches of Federal and Provincial Government service. Geographical training has proven useful in the fields of urban, regional and resource planning.

Members of the staff in Geography will be glad to advise students with respect to the possibilities for further study in the discipline.

Geology

Geology is the science of the earth. It includes all knowledge of the earth – its origin, history, structure, composition, and mineral wealth – and the physical, chemical, and biological processes that change the earth. A most comprehensive subject, it may be divided, for convenience, into three broad branches: Geophysics, in which modern methods of Physics are used to reveal the nature of the interior, of the outermost skin, and of the atmosphere around the earth, and to study the enormous forces that have acted and are still acting to change the earth; Geochemistry, in which experimental and analytical methods of Chemistry are used to understand the chemical processes which have given rise to the rocks, oceans, and mineral wealth of the earth; and Geobiology, which deals with the origin and evolution of living things on the earth's surface throughout geologic time. Because Geology involves the application of the fundamental sciences towards understanding the earth, its study requires a grounding in Mathematics, and in the principles and methods of Physics and Chemistry, or Biology. Specialization in Geology is offered on the St. George campus and interested students should consult the 'New Programme 1969' booklet of the Faculty of Arts and Science for details of the programme.

German

For the past two hundred years Germany, together with Austria and German-speaking Switzerland, have played increasingly important roles in European life, both as leaders in commerce and industry and as the homelands of important musicians, philosophers, scientists, psychologists, and religious and political thinkers. Their scholars are unrivalled in such fields as Biblical studies, philosophy, archaeology, art and music history, and physics and chemistry. Modern literature in Germany is equally distinguished. It developed late. The first great writers appeared towards the end of the eighteenth century. But from Lessing, Goethe and Heine to Brecht and Thomas Mann they have remained vigorous and individualistic, and concerned with the widest range of human problems, philosophical and psychological, moral and religious, social and economic.

University courses in German offer a thorough study of the language and of the more important authors from the Middle Ages to modern times. Language study includes phonetics and laboratory work, oral expression, translation, and essay-writing. In the senior years students receive advanced language training and may choose from a variety of courses in literature and in the development of the language. Scholarships for study at German universities are available for graduate students, and the German government sponsors flights to Germany and summer work for undergraduates.

German may be profitably studied in combination with other languages and literatures, with linguistics, philosophy, or history. It is offered as an option in such specialist programmes as English, music and fine art, and forms itself a part of specialist programmes in languages and linguistics.

Because it is a well-established fact that a young student learns languages more easily and more thoroughly than an older one, Grade XIII is the normal pre-requisite for University courses in German. For departments or faculties that require a student to learn to read scholarly German, however, provision is made for appropriate instruction for beginners and for guidance in reading in specialized fields for those who already have some knowledge of the language.

The successful completion of a four year programme including seven appropriate courses in German, entitles a student to do graduate work in the department. A knowledge of German is also a valuable asset in many other fields, including foreign service. For admission to Type A Certificate Courses at Ontario Colleges of Education the student should consult the section on Specialist Programmes in Modern Languages.

Greek

See Classical Studies

Greek & Latin Literature in Translation

See Classical Studies

Greek & Roman History

See Classical Studies

History

A recent University of Toronto publication suggests that, *Every subject taught in a university has a social context. History, in particular, is relevant to the study of disciplines no matter how specialized. The study of History leads the student into the records of mankind. This past illuminates, although it may not directly guide, the conditions of the present. To have no interest in History is to have no interest in the present, no reasonable view of the future and no analysis of oneself.*

Both in response to a greater demand and a larger enrollment, Erindale College takes pleasure in announcing that in the immediate future, its basic course in Western Civilizations will be supplemented by new offerings in Canadian, American and European history. This opportunity for concentrated work in specialized areas of interest will provide our students with a more balanced programme, thereby giving them an opportunity to discover that History is not only a dialogue between past and present but, as has already been indicated, a tool for self understanding and further intellectual growth.

In addition, a history concentration can provide students with the requisite mental discipline and analytic skills for work in a variety of chosen fields, from teaching and the law to a career in the civil service and journalism.

ITALIAN AND HISPANIC STUDIES

Italian

It is undeniable that the study of Italian Language and Literature has been, in the past, a neglected third or fourth choice. For Canada, French is an obvious first choice and Spanish has benefited from the results of geographical proximity. Italian has, until recently, hovered in the background behind prejudiced opinions of its worth, the result of the North American's vision of Al Capone and spaghetti as Italy's true cultural emanations. Moreover, Michelangelo and Raphael, among others, are the world's property, their origin having been forgotten.

During the past few years the pendulum has begun to swing back. First, recognition of Italian studies as a worthy and even indispensable aid to studies in other Literatures, especially French (Petrarch for Ronsard, etc.), Spanish (Ariosto for Cervantes, etc.) and English (Boccaccio for Chaucer, etc.). Then, this secondary interest became primary as many undergraduate and graduate students began to be caught up by an exciting, culturally innovative literature and language and changed from their previous field to Italian Studies. 'Exciting' may seem a trite adjective, but one *can* be swept along by the study of the 'Renaissance' in Italy reading, for example, Machiavelli as he wrote and so distinguishing him from his reputation and, indeed, rescuing him from continued misinterpretation or reading the poetry of Michelangelo and seeing his literary side and thus completing one's view of his genius.

And so one could go on from the beginnings of Italian Literature up to the present creative surge. Likewise, one can talk of the inherent beauty of spoken Italian or, more deeply, study the linguistic disarray that is Italy with vastly varying dialects from the top to bottom of the boot, and the social, historical causes and effects.

All these aspects, literary, linguistic, cultural and historical would be the goal of our courses of study and the complete offering would attempt to satisfy all these interests.

As said previously, Italian Studies are growing in North America. Most colleges and universities are desperately seeking personnel to start or increase departments of Italian. In our own area, high schools and universities are seeking to expand their offerings. Graduates in Italian studies are in demand now and will probably continue to be. Knowledge of another language and culture is regarded favourably in most other disciplines and is frequently required in graduate-level studies. Application can be seen not only in teaching and graduate study but in fields such as foreign affairs and law. Its influence on the individual is immeasurable.

Spanish

It is hoped that students who study Spanish will strive toward a twofold goal: the first, to learn to speak, understand, read and write the Spanish language with ease; the second, to become familiar with the civilization and intellectual life of the Hispanic world through serious study of the artistic and literary phenomena of that world. Latin America, with hundreds of millions of Spanish speakers, should be of vital interest and concern to English-speaking North Americans. It is inevitable that Canada's ties and contacts with this area will increase as the 20th century draws to a close. Thus opportunities for persons well-trained in the Hispanic field should likewise multiply.

The programme of Spanish studies at Erindale College is designed to allow the student to pursue either of two streams of specialization. One would permit him to take a maximum of language courses with a minimum of literature; the other would reverse the process giving an opportunity for concentration in literature and culture with fewer courses in language. After the first year all courses, both literary and linguistic, are conducted in Spanish as much as possible in order to give the student maximum exposure to the language.

Latin

See Classical Studies

Mathematics

There are many different motivations for the study of Mathematics. To the humanist, Mathematics is a part of the mainstream of human culture, and he is likely to regard his subject as an art. To the scientist or social scientist it affords analytical and descriptive devices which greatly illuminate theory. To the engineer and economist it is an important working tool. To the mathematician, it is an end in itself. The Department of Mathematics endeavours to provide courses to suit all of these viewpoints.

The professional mathematician is most likely to find employment in universities, in the civil service or in government laboratories, and in financially or technologically oriented business firms. Research positions require postgraduate study. Such fields as teaching, computing, applied statistics, and actuarial science offer opportunities for B.SC. graduates. A training in Mathematics has traditionally been a strong preparation for careers in law and business; today it is also an excellent foundation for further work in a wide variety of fields in the sciences and social sciences.

The sequential nature of Mathematics means that pre-requisites are essential in most courses and that, as a rule, it is disastrous to fall behind in a course. In other words, good preparation and steady work are essential to successful completion of a mathematics course, and students without the one and/or unwilling to engage in the other are advised to avoid the subject. Where pre-requisites are stated, they may be waived for students who can demonstrate adequate knowledge. However, generally a pre-requisite will not be waived without the assignment of some reading, so that students desiring a waiver are urged to make application at least two months before the beginning of term.

First year students with adequate preparation who want a substantial mathematics course either for its own sake or in conjunction with another field of study are advised to take Mathematics 135. All serious students should also take Mathematics 140E which deals with more abstract topics, particularly ones which illuminate and amplify Mathematics 135. A student wishing to become acquainted with the nature of modern mathematics but who does not need mathematics as a working tool will find Mathematics 140E taken without Mathematics 135 a challenging intellectual experience. The prerequisite of XIII MAT B can be waived for very good students. The three half courses, Mathematics 110FE, Mathematics 120SE, CSC, 108Y are intended for students seeking less demanding courses. Mathematics 120SE affords an entry into Mathematics for the student who omitted or did poorly in Grade XIII Mathematics A.

Philosophy

One thing philosophers do is analyse the procedures and results of the natural and social sciences and mathematics with a view to clarifying their basic concepts and assumptions, the modes of reasoning they employ, and the relation of the theories formulated to the world of everyday experience. More simply we might say that philosophers, as part of their constructive task, try to understand the over-all picture of the world implied by the findings of the sciences. But philosophers also take account of ethical, aesthetic and religious ideas which must also be given a place in any comprehensive world-picture. Much of the interest found in this constructive aspect of philosophy comes from the belief that it will help people to guide their lives wisely.

Although philosophers do not agree about every issue they discuss, philosophy has its own inner discipline which the student meets as he pursues its various branches. In the history of philosophy he comes to grips with the ideas and arguments of great thinkers of the past. In logic, epistemology, moral and social philosophy he learns to deal with problems in contemporary terms and to develop habits of clear and precise thought. In metaphysics and speculative philosophy he meets with some of the profoundest problems which confront the human mind.

A complete spectrum of philosophy courses is available at Erindale, including those for specialists. But all branches of the subject have much to offer everyone seeking a liberal education, regardless of his field of concentration. For students with an interest in language, literature and the arts there is Philosophy in Literature (205s), Existentialism (213s), Aesthetics (204F), Plato (209F) and other major figures in the history of philosophy; for students in the social sciences there is Philosophy of the Social Sciences (300) and Political Philosophy (202s); for students of mathematics and the natural sciences there is Modern Symbolic Logic (206F), Philosophy of Science (302), and Inductive Logic and Scientific Method (208s); and for students of history there is Philosophy of History (301).

Physical Science

See Physics

Physics

Physics was born of a desire to understand nature in a quantitative way. Guided by experiment and intuition, physicists arrive at mathematical relations among various concepts and these are then tested and extended by further research. The courses in physics are designed to help students both to understand and use the concepts and relations which have been developed and also to appreciate the need for continual questioning of widely-accepted views. The liberal arts student should gain insight into the nature of scientific investigation, while the science student whose interest is in sciences other than physics should acquire a back-ground knowledge which should lead to a deeper understanding of his own discipline.

The present programme in Physics at Erindale College employs the most up-to-date demonstration apparatus and undergraduate laboratory facilities. It has been designed to meet these diverse needs.

For students interested in the liberal arts, an introduction to the principles of physical science is presented in the form of a one-year terminal course (PSC 100FE, PHY 101SE). The more mathematically-inclined liberal arts student may expand his knowledge of physics by taking both mathematics and physics (Physics 110) in the first year and an additional physics courses in the second year (PHY 230E).

For students interested in science but not intending to specialize in Physics, several avenues of study are open, terminating in any year over the first three years of study. For example, a student of a science other than Physics could take a three-course sequence over a period of three years (Physics 110, 230E, 310). Termination after one or two years is also possible. Students who wish to pursue a general education that includes physics could follow the three-year programme given above with the possibility of an additional course in the fourth year.

Students wishing to specialize in physics should consult a physics professor.

POLITICAL ECONOMY

Political Science

The Political Science Program at Erindale has two main goals. First, it aims to provide an introduction to the core aspects of the discipline – the nature of the political process, the structural-functional aspects of modern governmental systems, the essentials of political philosophy past and present, and modern analytical approaches to the study of politics.

Secondly, and in addition, the programme reflects a special emphasis on the field of international relations which is a distinctive feature of the Political Science curriculum at Erindale. This will allow for concentration on the many aspects of international politics such as the foreign policy process, international organizations, and international behaviour.

Economics

Economics is a social science and undergraduate training in Economics, as in other disciplines, is directed toward the goal of a liberal education. Its purpose is to familiarize students with the discipline and logic of economic thinking, and so to equip them for intelligent appraisal of contemporary economic problems.

The student of economics does not learn how to run a business, balance a family budget or make money on the stock market. More significantly he studies the functioning of the economic system – the often complicated network in which individuals, businesses and governments interact to produce, distribute and consume goods and services. Every nation, whatever its political orientation (totalitarian, socialist or capitalist); whatever its physical and human dimension and whether it is technologically advanced or not has to contend with these economic decisions.

In recent years economic research has been particularly concerned with the diagnosis of two inversely related phenomena; excessive unemployment and inflationary price increases. Stress has also been given to the sources underlying economic growth in both the industrial nations and the low-income countries. The lack of sustained economic achievements in the low-income countries is probably the most serious long-run economic dilemma in the world today. Persistent balance-of-payment disequilibria, and the associated problems of international liquidity are also very pressing problems.

In Canada the problems of differential rates of regional development, the degree and impact of foreign ownership in Canadian industry and an equitable distribution of the tax burden are contemporary economic issues of significance.

The course sequence in Economics at Erindale is designed to accommodate the interests of both specialists and generalists. The specialist is encouraged to take both calculus and statistics in his early years. The generalist has the opportunity of taking a minimum of economic theory (two courses) before he is permitted to enrol in courses which discuss economic policy.

There is a broad interchange and overlap between the study of Economics and many other disciplines in the social sciences. Therefore students can usefully create sequences between Economics and almost any social science (e.g. Geography, History, Political Science, and Sociology) and also the physical sciences and Mathematics.

Students who have completed a sequence in Economics will have experienced a programme in rigorous thinking and logic in addition to the comprehension of the contemporary economic dilemmas. Those who have specialized in Economics very often pursue graduate work in either Economics or Business. It also provides solid training in such fields as Law or for entry into industry, the government or teaching.

Psychology

Psychology, the science of behaviour, deals with the manner in which organisms, including man, perceive and react to the world in which they live. Psychology addresses itself to the mechanisms and dynamics by which we acquire our responses and adapt to the environment — both the physical and the social. Since behaviour is complex and multi-determined, psychology must concern itself with physiological and genetic events as well as those which are entirely experiential. Psychology is thus a bio-social science, which – in a more or less evolutionary or adaptive framework – examines at many levels social interaction, developmental changes throughout the the life of the organism, the structure and organization of the senses, modes of perceiving and responding, the environmental events which shape our behaviour, the origins and implications of our drives and motivations, conflicts, emotions, and the wide variety of individual differences which are occasioned by differences in genetic endowment, physiological function and past experience. Because of the demands of science for rigor and objectivity, much emphasis is given to the techniques by which behaviour is studied; including the liberal use of animal investigation where it becomes virtually impossible to examine man himself directly to obtain answers. Extensive examination of a wide variety of experiments with humans and animals is paramount in all courses in psychology and forms the basis of theoretical discussion and generalization.

The requirements and curriculum leading to the degree of *Specialist* in Psychology were designed with several related purposes in mind. Since an advanced post-graduate degree (M.A. and PH.D.) is virtually essential for employment in the capacity of psychologist, the curriculum is designed to maximize the student's acceptability by an accredited graduate school. The *Specialist* programme assures the student exposure to a sufficiently varied range of sub-disciplines within the field of psychology, while making equally sure the basic demands of post-graduate education are more than adequately met. It is also the purpose of the *Specialist* requirements to provide the fundamental background and research skills that anyone considering further exploration of Behavioural Science will need. The study and application of psychology in modern times has proliferated into widely diverse areas in which contact with both broad and specific fields is essential for a proper appreciation of its scope. Such coverage we feel, is provided by the nature of the curricular choice and the stipulated requirements for the *Specialist* degree.

Sociology

One of the essential questions sociologists have had to confront concerns the extent to which the individual is determined by society and to what extent he is a determinant of society. How far can the individual go in influencing his destiny? Is he merely a prisoner of society?

In examining such questions, sociologists use the methods of science as well as those of the humanistic disciplines. The answers are not self-evident. They require an understanding of how individuals, groups and institutions are (or are not) interrelated.

In a rapidly changing world, traditional explanations often prove unreliable, both as a source of understanding and as a guide to action. The increasing complexity of modern society creates problems for which there are no ready-made answers. In these circumstances, sociology constitutes a valuable source of knowledge for man in his world.

New research interests and areas of application are producing such specialties as for example, the sociology of planning and communications, of automation, of mental illness, of developing nations, and of revolutions. Existing well-developed research areas which may continue to produce relevant contributions include urban sociology, political sociology, race and ethnic relations, and the sociologies of industry, of law, of education, of the mass media, of popular culture, and others. As insights from these various specialized areas of sociological investigation are gradually assembled for a larger and more revealing picture of various groups and institutions, our old and familiar views may appear in a new light.

Employment opportunities are constantly increasing for persons who have studied sociology. The number of positions in the private and public sectors of Canadian society is expanding rapidly. For example, persons with training in sociology are frequently employed in public relations, market research, advertising, industrial relations, and various correctional and guidance positions. Students who wish to pursue careers in such fields as teaching, social work, law, medicine, the ministry, business, economics, history, the natural sciences, politics, etc., may gain from the study of sociology a clearer understanding of the human condition as it relates to their chosen profession and to contemporary institutions in general. In Canada and abroad the present demand for professional sociologists is very great for teaching, research, administrative, and consulting positions. A professional career in sociology, however, usually requires advanced training beyond the undergraduate level.

Spanish

See Italian & Hispanic Studies

Statistics

See Mathematics

Zoology

Zoology is the branch of the biological sciences concerned with the animal kingdom. It relates to such major human problems as population numbers, war, famine, disease, conservation, pollution, and the need for outdoor recreation. The study of Zoology provides a broad perspective of man's place in the natural world. Basic awareness of the population explosion and its consequences have come from zoological research. Ecological studies of the interaction of plants and animals show how famine and disease follow the unwise use of our habitat, and how pollution aggravates these problems. Life in our rivers and lakes is studied not only because they produce fish, but also because their oxygen and chemical contents affect all life. Zoology plays a part not only in the study of life on our planet, but also in the design of life-support systems for space travel. One modern aspect of Zoology is the study of animal behaviour, which helps us to understand human behaviour in warfare, politics, and other activities. Zoologists study the effects of radiation on animals and their surroundings, and formulate rules that can be applied to man. Much of the research done in medicine depends on discoveries made with other animals and applied to man.

Historically, Zoology was largely an observational science but now has become much more experimental and theoretical and depends in its research on radioisotopes and other techniques of chemistry and physics. The main theoretical contributions of zoologists have been in the understanding of life in terms of physical and chemical mechanisms, and the theory of organic evolution.

A zoologist is a scientist who is engaged in the study of the structure, the functioning, and the interrelationships of animals. The general field of Zoology is divided into a large number of special areas of study and research. One way to divide Zoology is according to the classification of animals into such specialties as: protozoology, entomology (insects), mammalogy, and ichthyology (fish). Another way is to divide it by levels of organization and methods of study such as: molecular biology, cell biology, radiation biology, physiology, genetics, ethology (animal behaviour), and population biology.

Modern Zoology depends on knowledge in many other scientific disciplines. The fruitful interaction of Zoology with the other sciences is encouraged at the University of Toronto. Special branches of Zoology can be combined with studies in Anthropology, Botany, Geology, Mathematics, Medical Biophysics, Parasitology, Paediatrics, and Psychology, to name only some. Many of the professors in the Department of Zoology do research and teaching in other departments of the University as well and are available to counsel students. Formal recognition is shown by the cross-appointments of Zoology staff in other departments of the University. Not only is there interrelationship and a blending of scientific knowledge among the University departments, but this extends to Institutes and various divisions of Government. Members of the Zoology Department maintain active programmes in affiliation with the Royal Ontario Museum, the Great Lakes Institute, the Ontario Department of Lands and Forests, and the Fisheries Research Board of Canada, to mention but a few associations. In addition to the previously mentioned disciplines, students are encouraged to incorporate with their Zoology programmes, courses in the areas of Anatomy, Biochemistry, Microbiology, Parasitology, and Physiology. The relationships and opportunities for research and study between the different disciplines are constantly being investigated and extended.

Careers in Zoology are mainly in research, which is the search for new knowledge on which to base our understanding of biological principles; in teaching at the levels of the high schools, community colleges, and universities; and in technical biological work such as drug testing, pest control, fish and wildlife management, and animal production. Professional careers in Zoology require specialization at the undergraduate level, and usually an advanced degree. Students should bear this in mind when planning their programmes.

Students who intend to become high-school biology teachers are urged to plan their programmes to meet the requirements of the High School Assistant's Certificate, Type A. The Type A Certificate requires 60 credits in a four-year course, with a minimum of 24 credits in Biology. A detailed description may be found in Circular No. 649 of the Ontario Department of Education.

The courses offered at Erindale by the Department of Zoology have no rigid pre-requisites or co-requisites. Those listed are only suggestive. However students should realize that courses are designed on the assumption that the students who are enrolled will have the suggested pre-requisites in their background and will be enrolled concurrently in the suggested co-requisite courses, if any.

Students specializing in Zoology in the sense that they wish ultimately to proceed to a career in Zoology, are expected to take all Zoology courses in the 220–226 series. There is no prescribed programme of non-zoology courses for such students but they are strongly advised to build their programme along the following lines:

In first year – BIO 100 or 120, CHM 120, PHY 110, and a first-year Mathematics course other than MAT 100.

In second year – CHM 221, BIO 18E and ZOO 220, ZOO 221.

In the third year a student specializing in Zoology should take such additional advanced courses as may be available.

In making a selection of Zoology and other science courses in a given year, the student should ensure that pre-requisites for courses in future years are obtained.

Many variations on the above suggested programme are possible, depending on the students' individual interests and needs. For example, a student interested in quantitative ecology may wish to take additional courses in Mathematics; a student interested broadly in Biology may wish to substitute courses in Botany for some of the above; or a student interested in cellular Zoology or Physiology may wish to take more Chemistry, Physics, or Biochemistry than the suggested minimum. Specialist students are strongly advised to seek the counsel of Department faculty before selecting courses for their programmes.

Students entering their third year at Erindale, who, during 1968/69 took the courses designated under the old programme as Zoology 200, 210, and 211, should not elect to take either ZOO 220 or ZOO 221.

One of either BIO 100 or BIO 120 is recommended as a pre-requisite for all subsequent zoology courses offered at Erindale. BIO 100 assumes no previous instruction in biology. BIO 120 complements topics generally presented in Grade XIII Biology.

Students entering university with Grade XIII Biology may petition for admission directly into Zoology courses in the 220–226 series. Permission will be given on the basis of a test conducted during the first week of classes. Students wishing to petition should enroll in BIO 120 and inform the instructor of their intention.

During 1969/70 Animal behaviour and neurobiology (ZOO 222) and Systematics and Phylogeny (ZOO 224) will not be offered at Erindale.

Courses Offered at Erindale

Key to the Summary

The summary gives:

1a Course abbreviation and identification number, e.g. AST 100=Astronomy 100
The letter E indicates that the course is given at Erindale only.
F indicates a half-course given in the Fall Term only
S indicates a half-course given in the Spring Term only
Y indicates a half-course given throughout both terms
N.B. If F or S or Y do *not* appear after the 3-digit number, the course is a full-course given throughout both terms.

1b The figure in brackets indicates adidtional availability
e.g. (2) indicates that the course is also available to Second Year students
(3) indicates that the course is also available to Third Year students

2 A short title of the course.

3 The equivalent hours of formal instruction per week.
L indicates lecture or lecture-discussion hours
T indicates tutorial, seminar or small-group hours
P indicates hours for practical work, in laboratories, language laboratories, etc.

4 The stated pre-requisites P: and co-requisites C: for the course.
The solidus symbol (/) means *or*
The ampersand symbol (&) means *and*

Anthropology

Courses open to First Year students

ANT 100E	(2, 3)	Introduction to Anthropology	2L	1T		P:		C:

N.B. and any second year course with the permission of the instructor

Courses open to Second Year students

ANT 203E	(3)	Concepts and Theories in Physical Anthropology	2L		1P	P:		C:
ANT 204E	(3)	Concepts and Theories in Social Cultural Anthropology	2L	1T		P:		C:
ANT 205E	(3)	Technology, Society and Culture	2L	1T		P:		C:
ANT 206E	(3)	Archaeological Fields Methods and Analysis	2L		1P	P:	permission of instructor	C:
ANT 241E	(3)	Indians of North America	2L	1T		P:		C:
ANT 242E	(3)	Peoples of Africa and Asia	2L	1T		P:		C:

Courses open to Third Year students in addition to those shown with (3) above

ANT 398E	(2)	Independent Reading		1T		P:	permission of instructor	C:
ANT 399E	(2)	Independent Research		1T		P:	permission of instructor	C:

Astronomy

Courses open to First Year students

AST 100	(2, 3)	Introduction to Astronomy	1L	1T	1P	P:		C:

Astronomy – continued

Courses open to Second Year students

AST 220	(3)	General Astronomy	1L	1T	1P	P:	PHYSICS 110 /equivalent	C:

Biology

Courses open to First Year students

BIO 100	(2, 3)	Principles of Biology	2L		3P	P:		C:
BIO 120	(2, 3)	Evolutionary and Environmental Biology	2L		3P	P:		C:

Courses open to Second Year students

BIO 218E	(3)	Biometrics	2L		3P	P:		C:
BIO 222E	(3)	Genetics	2L		3P	P:		C:
BIO 223E	(3)	Ecology	2L		3P	P:		C:

BIO 218E, 222E, 223E *above—available to Third Year General Science students*

Botany

Courses open to First Year students
(See under Biology)

Courses open to Second Year students

BOT 220		The Plant Kingdom	2L		3P	P:	BIO 100/120 or permission of instructor (old BOT 110/ZOO 110)	C:
BOT 221E		Biology of Lower Plants	2L		3P	P:	as above	C:

Botany – continued

Courses open to Third Year students

BOT 311		Plant Physiology and Biochemistry	2L		3P	P:	BIO 100/120 and CHM 221 (old BOT 110/ZOO 110 and CHM 211)	C:	

N.B. See additional Courses under Biology

Chemistry

Courses open to First Year students

PSC 100FE	(2, 3)	Introduction to Physical Science	2L	1T		P:		C:	
CHM 101SE	(2, 3)	General Chemistry	2L	1T		P:	PSC 100FE	C:	
CHM 120		Basic Concepts of Modern Chemistry	2L	1T	2P	P:	XIII CHM, MAT A	C:	MAT 135

Courses open to Second Year students

CHM 220/317	(3)	Chemical Statics and Dynamics	2L	1T		P:	CHM 110/120	C:	MAT 235
CHM 221	(3)	Structure and Synthesis in Chemistry (see Note to Third Year students)	2L		4P	P:	CHM 110/120	C:	

Courses open to Third Year students in addition to those shown with (3) above

CHM 314		Inorganic Chemistry	2L		3P	P:	CHM 110/120 (CHM 211 and 214 recommended)	C:	

N.B. Third Year students may take CHM 221 if they did not take CHM 211 in 1968–69

CLASSICAL STUDIES

Greek

Courses open to First Year students

GRK 100	(2)	Introductory Greek with selected Readings		4T	P:	C:

Courses open to Third Year students

GRK 300		Greek Epic and Tragedy		3T	P: GRK 200	C:

Greek and Roman History

Courses open to First Year students

GRH 100	(2, 3)	Greek and Roman History to the Death of Alexander	3L		P:	C:

Courses open to Second Year students

GRH 201E	(1)	The Greek and Roman World 323–44 B.C.	3L		P:	C:
GRH 210	(2, 3)	Studies in Greek History of the 5th Century	3L		P: one course in GRH	C:

Courses open to Third Year students

GRH 300		Social and Political History of the Roman Empire	3L		P:	C:

Greek and Latin Literature in Translation

Courses open to First Year students

GLL 191	(2, 3)	Greek and Roman Drama (limited enrolment)	2L	1T	P:	C:

Latin

Courses open to First Year students

LAT 120F	The Poetry of Catullus	3T	P: XIII LAT	C: LAT 123S
LAT 123S	Cicero and Roman Oratory	3T	P: XIII LAT	C: LAT 120F

Courses open to Second Year students

LAT 220E	Comedy and Epic in the Roman Republic	3T	P: LAT 100/LAT 120 and 123	C:

Computer Science

See Mathematics

Economics

See Political Economy

English

N.B. English is taught in relatively small classes

Courses open to First Year students

ENG 100	Forms of 20th Century Literature	3L	P:	C:
ENG 101	Shakespeare	3L	P:	C:
ENG 102	American Literature	3L	P:	C:

Courses open to Second Year students

ENG 202	English Poetry	2L	P:	C:
ENG 205	Varieties of Drama	2L	P:	C:
ENG 206	Varieties of Prose Fiction	2L	P:	C:
ENG 210	Chaucer	2L	P:	C:

English – continued

Courses open to Third Year students

ENG 300		English Literature from Tennyson to the Present	3L			P:		C:	
*ENG 301		Poetry and Prose	3L			P:		C:	

French

Courses open to First Year students

FRE 100	(2, 3)	French Literature for non-specialists	1L	1T		P:	Reading Knowledge	C:	
FRE 120	(2, 3)	Preparation for University French studies		3T	2P	P:	XIII FRE	C:	
FRE 140	(2, 3)	Studies in Modern French Literature	1L	1T		P:	XIII FRE	C:	FRE 120
FRE 142	(2, 3)	Man and Society in Fiction	1L	1T		P:	XIII FRE	C:	FRE 120

Courses open to Second Year students

FRE 200	(3)	French Literature for non-specialists	1L	1T		P:	FRE 100	C:
FRE 220	(3)	The Classical Current	1L	1T		P:	FRE 120‡	C:
FRE 222	(3)	The Philosophical Current	1L	1T		P:	FRE 120	C:
FRE 252	(3)	Drama from 1600 to 1800	1L	1T		P:	FRE 120	C:
FRE 262	(3)	Prose Fiction from 1600 to 1800	1L	1T		P:	FRE 120	C:
FRE 271	(3)	Language Practice		3T	2P	P:	FRE 120	C:
FRE 274	(3)	Introduction to French Stylistics	1L	1T		P:	FRE 120	C:
FRE 275	(3)	The Structure of Modern French	1L	1T		P:	FRE 120	C:
FRE 290	(3)	Independent Study				P:	FRE 120	C:

Courses open to Third Year students

FRE 300		Nineteenth and Twentieth Century French Literature	2L	1T		P:	Old FRE 200	C:
FRE 301		Modern French Drama	2L	1T		P:	Old FRE 201	C:

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*May not be given in 1969–70

‡Old FRE 100 is equivalent to FRE 120

Geography

If a student intends to specialize in Geography it is recommended that he take at least two courses in Geography per semester

Courses open to First Year students

GGR 100FE		Introductory Geography	2L		2P	P:		C:
GGR 101FE	(2)	Geomorphology	2L		2P	P:	XIII GGR	C:
GGR 102SE	(2)	Climatology	2L		2P	P:	GR 11 GGR/GGR 100	C:
GGR 103FE	(2)	Economic Geography I	2L	1T		P:		C:
GGR 104SE	(2)	Economic Geography II	2L	1T		P:	GGR 103FE	C:
GGR 105FE	(2)	Cultural Geography I	2L	1T		P:		C:
GGR 106SE	(2)	Cultural Geography II	2L	1T		P:	GGR 105FE/permission of instructor	C:

Courses open to Second Year students

GGR 200FE	(3)	Geographical Methods	2L		2P	P:	Old GGR 100	C:
GGR 201SE	(3)	Problems of Resource Development	2L		1P	P:	Old GGR 100/permission of instructor	C:

N.B. See also Physics 225E and 226E

Courses open to Third Year students

GGR 300FE	North America I	2L	1T	P:	Old GGR 200 permission of instructor	C:
GGR 301SE	North America II	2L		P:	GGR 300FE/permission of instructor	C:
GGR 302FE	Urban Geography I	2L	1T	P:	Old GGR 200 permission of instructor	C:
GGR 303SE	Urban Geography II	2L	1T	P:	GGR 302FE	C:

Geology

Courses open to First Year students

GLG 100	(2)	Introduction to Geology	2L		2P	P:		C:	

Courses open to Second Year students
(in addition to above)
See PHYSICS 225E and 226E

German

Courses open to First Year students

GER 105	(2, 3)	Reading German		3T		P:		C:	
GER 121		Modern German Literature	2L	1T		P:	XIII GER or permission of instructor	C:	
GER 140		Language Practice		2T	2P	P:	XIII GER or permission of instructor	C:	GER 120/121

Courses open to Second Year students

GER 240		German Literature of the Enlightenment and Storm and Stress	2L	1T		P:	GER 120/121 (old GER 100)	C:	

Courses open to Third Year students

GER 300		Advanced Studies in Major German Authors	2L	1T		P:	GER 240 (old GER 200)	C:	

Greek

Greek & Roman History

Greek & Latin Literature in Translation

See Classics

History

Courses open to First Year students

HIS 100E		Modern Europe	2L	1T	P:	C:

Courses open to Second Year students

*HPS 100	(3)	History and Philosophy of Science	2L	1T	P:	C:
HIS 200E	(3)	History of the United States 1763–1968	2L	1T	P:	C:
HIS 201E	(3)	19th Century Britain	2L	1T	P:	C:
HIS 202E	(3)	Modern America	2L		P: permission of instructor	C:

Courses open to Third Year students

HIS 300	(2)	Canada	2L	1T	P:	C:
HIS 301	(2)	A Second Special Course in Canadian or European History	2L		P:	C:
*HIS 302E	(2)	American Social History, 19th Century	2L		P:	C:

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*May not be given in 1969–70.

ITALIAN AND HISPANIC STUDIES

Italian

Courses open to First Year students

ITA 100	(2)	Beginning Italian	3L		2P	P:		C:	
ITA 140E		The Italian Tradition	2L			P:		C:	

Courses open to Second Year students

ITA 200E	(1)	Advanced Italian	2L		1P	P:	XIII ITA/ITA 100	C:	

Courses open to Third Year students

ITA 300		Introduction to Italian Literature	2L	1T		P:	Old ITA 200	C:	
ITA 301	(2)	The Modern View	2L	1T		P:	Old ITA 100	C:	ITA 200E
ITA 320		Erato (The Love Lyric)	2L	1T		P:	Old ITA 200	C:	

Spanish

Courses open to First Year students

SPA 100E	(2)	Beginning Spanish	3L		2P	P:		C:	
SPA 120E	(2)	Intermediate Grammar and Composition	2L	1T		P:	XIII SPA/SPA 100	C:	
SPA 140E	(2)	Spanish Civilization and Culture	2L			P:		C:	
SPA 160E	(2)	Spanish American Civilization and Culture	2L			P:		C:	
SPA 200SE	(2, 3)	Conversation and Language Practice		3T		P:	XIII SPA/SPA 100 and Fall term of some Second Year Course		

Spanish – continued

Courses open to Second Year students

SPA 220E	(3)	Introduction to Literature and Literary Methods	3L		P:	XIII SPA/SPA 100	C:
SPA 240E		General Survey of Peninsular Literature	3L		P:	XIII SPA/SPA 100	C:
SPA 241FE	(3)	Spanish Phonetics		3T	P:	XIII SPA/SPA 100	C:
SPA 260FE	(3)	History of Spain		3T	P:	XIII SPA/SPA 100	C:

Courses open to Third Year students

SPA 300		Survey of Spanish Literature	3L		P:	Old SPA 200	C:
SPA 301		Spanish Literature of the Golden Age	3L		P:	Old SPA 201	C:

In 1969–70 students may take SPA 241FE
and SPA 260FE to make up a full course.

Latin

See Classics

Mathematics

Courses normally taken in First Year

All mathematics courses are available to all students who have the prerequisite or can obtain waiver of the prerequisite

Computer Science

CSC 108Y	(2, 3)	Introduction to Computer Science	1L	1T	P:		C:

Mathematics

MAT 110FE	(2)	Calculus I (May not be taken with MAT 135, may be followed by MAT 135 in Second Year)	2L	2T	P:		C:
MAT 120SE	(2)	Finite Mathematics (May not be taken with MAT 135)	2L	2T	P:	XIII MAT A/110FE	C:
MAT 135		Calculus with Linear Algebra	2L	2T	P:	XIII MAT A	C:
MAT 140E	(2)	Abstract Mathematics I	2L	2T	P:	XIII MAT A and B	C:

Courses normally taken in Second Year

Applied Mathematics

APM 246SE		Applied Mathematics (May not be offered in 1969–70)	2L	1T	P:	MAT 244F	C:

Mathematics

MAT 235	(3)	Calculus II	2L	1T	P:	MAT 135 (old 100/110)	C:
MAT 244F	(3)	Differential Equations (May not be offered in 1969–70)	2L	1T	P:	MAT 135 (old 100/110)	C:

Statistics

STA 232	(3)	Probability and Statistics	2L	1T	P:	MAT 135/110E and 120E (old 100/110)	C:

Courses normally taken in Third Year

Mathematics

MAT 325	Geometry	2L	1T	P:	MAT 140E (old 211/300)	C:
MAT 330	Analysis	2L	1T	P:	MAT 235 (old 200/210)	C:

Philosophy

Courses open to First Year students

PHL 100		Introduction to Philosophy	2L	1T	P:		C:

Courses open to Second Year students

PHL 200F	(3)	Introduction to Ethics	2L	1T	P:		C:
PHL 201S	(3)	Contemporary Ethics	2L	1T	P:	PHL 200F	C:
PHL 202S	(3)	Political Philosophy	2L	1T	P:	PHL 200F	C:
PHL 203F	(3)	Philosophy of Religion	2L	1T	P:		C:
PHL 204F	(3)	Aesthetics	2L	1T	P:		C:
PHL 205S	(3)	Philosophy in Literature	2L	1T	P:		C:
PHL 206F	(3)	Modern Symbolic Logic	2L	1T	P:		C:
PHL 207S	(3)	Philosophical Uses of Logic	2L	1T	P:	PHL 206F	C:
PHL 208S	(3)	Inductive Logic and Scientific Method	2L	1T	P:	PHL 206F	C:
PHL 209F	(3)	Plato	2L	1T	P:		C:
PHL 210S	(3)	Aristotle	2L	1T	P:		C:
PHL 211F	(3)	Descartes and Locke	2L	1T	P:		C:
PHL 212S	(3)	Berkeley and Hume	2L	1T	P:	PHL 211F	C:
PHL 213S	(3)	Existentialism	2L	1T	P:	1 course in Philosophy	C:

Courses open to Third Year Students

Note those indicated with (3) above.

Physical Science

See Physics

Physics

Courses open to First Year students

PSC 100FE	(2, 3)	The Concepts and Methodology of Physical Science	2L		2P	P:		C:	PHY 101/ CHM 101
PHY 101SE	(2, 3)	The Basic Principles of Physics	2L		2P	P:	PSC 100FE	C:	
PHY 110		Introductory Physics for Science students	2L		2P	P:	XIII PHY, XIII MAT	C:	1st course in calculus

Courses open to Second Year students

PHY 211E	(3)	Thermal Physics	2L	1T		P:	PHY 230E (old 210)	C:	
PHY 223E	(3)	Electronics	2L		2P	P:		C:	
PHY 225FE	(3)	Geotectonics and Sea Floor Spreading	1L	1T		P:		C:	
PHY 226SE	(3)	Introduction to the New Geonomy	1L	1T		P:	PHY 225FE	C:	
PHY 230E		Advanced Electricity, Magnetism and Physical Optics	3L		2P	P:	PHY 110	C:	2nd course in calculus

Courses open to Third Year students

PHY 310		Atomic and Nuclear Physics	3L			P:	Old PHY 210	C:	Applied Maths/PHY 2II E
PHY 311		Introductory Classical and Quantum Mechanics	2L			P:	PHY 110	C:	PHY 230E

POLITICAL ECONOMY

Economics

Courses open to First Year students

ECO 100	(2)	Introduction to Economics	2L	1T	P:		C:

Courses open to Second Year students

ECO 206	(3)	North American Economic History	2L	1T	P:		C:
ECO 207	(3)	Economic History of Europe (may not be offered in 1969–70)	2L	1T	P:		C:
ECO 225E		Economic Theory	2L	1T	P:	Old ECO 100	C:

Courses open to Third Year students

ECO 323		Industrial Organization and Public Policy	2L	1T	P:	ECO 225E (old ECO 202)	C:
ECO 328		International Economics and Policy	2L	1T	P:	ECO 225E/ECO 206 (old ECO 202/200	C:
ECO 336		Public Finance (may not be offered in 1969–70)	2L	1T	P:	ECO 225E (old ECO 202)	C:

Political Science

Courses open to First Year students

POL 100	(2, 3)	Introduction to Canadian Politics	2L	½T	P:		C:

Courses open to Second Year students

POL 200	(3)	Political Theory	2L	1T	P:		C:

Political Science – continued

POL 203	(3)	Politics and Government of the United States	2L	1T	P:		C:	
POL 204	(3)	Politics and Government of the U.S.S.R.	2L		P:		C:	

Courses open to Third Year students

POL 320	(2)	Modern Political Thought	2L		P:		C:	
POL 306	(2)	International Relations	2L		P:		C:	
POL 328	(2)	International Organization (if enrolment warrants)	2L		P:		C:	POL 306
POL 430E		Workshop in Political Science (if enrolment warrants)			P:	POL 100	C:	

Psychology

Courses open to First Year students

PSY 100	(2, 3)	Introductory Psychology	2L	P:		C:	

Courses open to Second Year students

PSY 200F	(3)	Statistics and Research Design I	2L	P:	*	C:	
PSY 201S	(3)	Statistics and Research Design II	2L	P:	*	C:	
PSY 203F	(3)	Introduction to Social Psychology (May NOT be taken if Psychology 204 was taken in 1968–69)	2L	P:	*	C:	
PSY 204S	(3)	Personality Development	2L	P:	*	C:	
PSY 205F	(3)	Differential Psychology	2L	P:	*	C:	
PSY 208S	(3)	Sensory and Perceptual Processes	2L	P:	*	C:	

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* Psychology 100 is a recommended pre-requisite

Psychology – continued

PSY 209S	(3)	Biological Foundation of Behaviour	2L		P:	*		C:	
PSY 210Y	(3)	Individual Research	2L		P:	*		C:	another PSY course
PSY 211F	(3)	Motivation	2L		P:	*		C:	
PSY 212ES	(3)	Animal Learning	2L		P:	*		C:	
PSY 213EF	(3)	Comparative Psychology	2L		P:	*		C:	
PSY 214EF	(3)	Human Learning and Memory	2L		P:	*		C:	
PSY 215ES	(3)	Developmental Psychology	2L		P:	*		C:	
PSY 216EY	(3)	Experimental Psychology	2L		P:	*		C:	

Sociology

N.B. Courses subject to change

Courses open to First Year students

SOC 100	(2)	Introduction to Sociology	2L	1T	P:			C:	
SOC 140	(2)	Contemporary Society	2L	1T	P:			C:	

Courses open to Second Year students

SOC 201	(3)	Methods of Social Research	2L	1T	P:	SOC 100	*or*	C:	SOC 100
SOC 202	(3)	Structure of Interpersonal Relations	2L	1T	P:			C:	
SOC 205	(3)	Urban Society	2L	1T	P:			C:	

Courses open to Third Year students

SOC 301	(2)	Sociological Theory	2L	1T	P:	SOC 100	*or*	C:	SOC 100
SOC 302	(2)	Sociology of the Family	2L	1T	P:	SOC 100	*or*	C:	SOC 100
SOC 304	(2)	Industrial Society	2L	1T	P:	SOC 100	*or*	C:	SOC 100

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* Psychology 100 is a recommended pre-requisite

Spanish

See Italian & Hispanic Studies

Statistics

See Mathematics

Zoology

N.B. See additional Courses under Biology

Courses open to First Year students
(See under Biology)

Courses open to Second Year students

ZOO 220	(3)	Animal Form and Function	2L	3P	P:	C:
ZOO 221	(3)	Cellular Developmental Zoology	2L	3P	P:	C:

Courses open to Third Year students

ZOO 323	(3)	Physiology and Development (available to Third Year General Science students)	2L	3P	P:	C:

Course Descriptions

Anthropology

ANT 100E Introduction to Anthropology

Principles of human evolution, the development of human cultures from the most remote times and a comparative survey of selected non-Western societies.

Pre-requisite: None
Co-requisite: None

ANT 203E Concepts and Theories in Physical Anthropology

An introduction to specific fields of physical anthropology: osteology, primatology, genetics, human palaeontology and growth and constitution.

Pre-requisite: None
Co-requisite: None

ANT 204E Concepts and Theories in Social Cultural Anthropology

The comparative study of social institutions; culture and the individual; culture contact.

Pre-requisite: None
Co-requisite: None

ANT 205E Technology, Society and Culture

The role of technology in social and cultural change; introduction to basic technology and the history of technological development; relationships between technology, social systems and culture change.

Pre-requisite: None
Co-requisite: None

ANT 206E Archaeological Field Methods and Analysis

In the fall term students will excavate an archaeological site; in the spring attention will be focused on primitive technology, the analysis and description of archaeological material, and the reconstruction of culture history from archaeological data.

Pre-requisite: Permission of instructor
Co-requisite: None

ANT 241E Indians of North America
Survey of native cultures and analysis of the role of environmental and historical factors.
Pre-requisite: None
Co-requisite: None

ANT 242E Peoples of Africa and Asia
Description of selected non-Western cultures of the Old World and a comparative analysis of their institutions.
Pre-requisite: None
Co-requisite: None

ANT 398E Independent Reading
Supervised study of selected anthropological topics.
Pre-requisite: Permission of instructor
Co-requisite: None

ANT 399E Independent Research
Supervised investigation of special research problems in anthropology.
Pre-requisite: Permission of instructor
Co-requisite: None

Astronomy

AST 100 Introduction to Astronomy
A general survey of astronomy intended for First Year students as well as for generalists in higher years. The course would contain a descriptive treatment of the nature of solar and sidereal systems and the present conception of the structure of the universe.
Pre-requisite: None
Co-requisite: None

AST 220 General Astronomy
A survey course in astronomy intended for specialists in science in the second or higher years. Emphasis would be placed on current developments as well as on the application of basic physics to astronomical problems.
Pre-requisite: PHY 110 or equivalent
Co-requisite: None

Biology

Note: See courses under Zoology and Botany

BIO 100 Principles of Biology

An introductory biology course emphasizing the role of physical and chemical principles in life processes. Lectures and laboratories will stress organization and metabolism of cells and organisms including nutrients, energy cycles and physiological regulation. Genetic mechanisms, reproduction and evolution of plants and animals will also be considered.

Pre-requisite: None
Co-requisite: None

BIO 120 Evolutionary and Environmental Biology

The backbone of the course is the evolution of matter viewed at different levels of organization from atoms through plants and animals to ecological units including man in his environment. Mechanisms and evidence for the theory will be stressed. Both plants and animals will be included in descriptive and experimental laboratory exercises. Grade XIII BIO *is suggested as preparation.*

Pre-requisite: None
Co-requisite: None

BIO 218E Biometrics

This course combines the roles of (a) a service course for students specializing in biological and social sciences, and (b) an introduction to biometric methods for those intending to pursue further work in mathematical biology. The first term comprises a review of commonly used statistical procedures, together with the models upon which they are based, while the second half is devoted to techniques in multivanate analysis. Computer Science, CSC 108 is suggested as a co-requisite.

Pre-requisite: None
Co-requisite: None

BIO 222E Genetics

A course dealing with the genetics and cytogenetics of plant and animal materials. Concepts of genetic systems and of cytogenetic mechanisms will be developed from

Mendel to the present. The laboratory work will involve Drosophila and Arabidopsis including crossing and data analysis BIO *100/120 is suggested as preparation.*
Botany 100/110 and Zoology 100/110 also serve as suggested preparation.

Pre-requisite: None
Co-requisite: None

BIO 223E Ecology

The course deals with the structure and function of the living world primarily at the population, community, ecosystem and biosphere levels of organization. The influence of physical factors (temperature, light, etc.) quantitative and qualitative descriptions of populations in aquatic and terrestrial environments, and man's influence, will be stressed. BIO *100/120 is suggested as preparation.*
Old BOT *100/110 and Old* ZOO *100/110 also serve as suggested preparation.* BIO *218*E *is suggested as a co-requisite.*

Pre-requisite: None
Co-requisite: None

Botany

(See additional courses under Biology)

BOT 220 Morphology and Evolution in the Plant Kingdom

A lecture, laboratory and field trip course on representatives of the major plant groups, exclusive of algae and fungi, with emphasis on morphology, anatomy, and evolution.

Pre-requisite: BIO 100/120 (Old BOT 110/ZOO 110) or permission of instructor.
Co-requisite: None

BOT 221E Biology of Lower Plants

The course consists of two parts, one dealing with the relation of cell structures at the electron microscope level to their physiological and biochemical functions.
The second part deals with the biology of algae and fungi.
Alternate weeks are devoted to each topic.
The laboratory work consists of the examination, characterization and culture of algae and fungi, and also the

examination of living and stained plant cells, and the effects on their structures of external conditions. Part of this latter study will be devoted to electron microscope techniques.

Pre-requisite: BIO 100/120 (Old BOT 110/ZOO 110) or
permission of instructor.
Co-requisite: None

BOT 311 Plant Physiology and Biochemistry

A lecture and laboratory course covering the metabolism, growth, mineral nutrition and general physiology of plants.

Pre-requisite: BIO 100/120 & CHM 221 (Old BOT 110/ZOO 110
& CHM 211)
Co-requisite: None

Chemistry

PSC 100FE Introduction to Physical Science

(See Physics Section for description)

CHM 101SE General Chemistry

*A treatment of selected topics in chemistry designed to illustrate the basic principles of science discussed in Physical Science 100*FE *and their applications.*

Pre-requisite: Physical Science (PSC 100FE)
Co-requisite: None

CHM 120 Basic Concepts of Modern Chemistry

Elementary concepts of thermodynamics and their application to chemical equilibria. Atomic and molecular structure with reference to the Periodic Table and modern theories of chemical bonding. Reaction kinetics and chemical reactivity in relation to structure.

Pre-requisite: XIII CHM and MAT A (Minimum)
Co-requisite: MAT 135. PHY 110 recommended for those
intending to specialize in Chemistry.

CHM 220/317 Chemical Statics and Dynamics

Elementary quantum mechanics. Principles and applications of electronic vibrational rotational and magnetic *resonance spectroscopy. The second and third laws of thermodynamics. Kinetic molecular theory and elementary statistical mechanics. Reaction kinetics and its application to the elucidation of reaction mechanisms.*

Pre-requisite: CHM 110/120
Co-requisite: MAT 235

CHM 221 Structure and Synthesis in Chemistry

A study of structure of both solid and liquid states, using mainly inorganic examples. This would lead into a detailed study of bonding and particularly of the spectroscopic methods used to elucidate molecular structures. A section on the behaviour of the most important functional groups in organic chemistry will complete the lecture course. The laboratory will emphasize synthesis of both inorganic and organic molecules.

Pre-requisite: CHM 110/120
Co-requisite: None

CHM 314 Inorganic Chemistry

Atomic structure and its relation to the chemical properties of the elements, valence theory, stereochemistry of inorganic compounds, co-ordination compounds, transition metal chemistry, physical methods of structure determination.

Pre-requisite: CHM 110/120 (CHM 211 & 214 recommended)
Co-requisite: None

CLASSICAL STUDIES

Greek

GRK 100 Introductory Greek with selected Readings

An introduction to the study of the ancient Greek language, and the reading of Greek Prose. For beginners. Available also to Second Year students.

Pre-requisite: None
Co-requisite: None

GRK 300 Greek Epic and Tragedy

Reading of HOMER, *Iliad I,* XXII. *With reading of* SOPHOCLES, *Antigone;* EURIPIDES, *Medea.*

Pre-requisite: GRK 200
Co-requisite: None

Greek & Roman History

GRH 100 Greek and Roman History to the Death of Alexander

A study of political, economic and intellectual development in the youthful creative phase of classical civilization. Available also to Second and Third Year students.

Pre-requisite: None
Co-requisite: None

GRH 201E The Greek and Roman World 323–44 B.C.

Hellenistic Society; The Roman Republic. Effects political and cultural of expansion into Asia; constitutional, economic, social and scientific maturity; wars of great powers, culminating in victory of Roman Republic; subsequent decay of social institutions and search for a new basis for society.

Pre-requisite: None
Co-requisite: None

GRH 210 Studies in Greek History of the 5th Century

Aspects of life in the Golden Age of Greece.

Pre-requisite: One course in GRH recommended
Co-requisite: None

GRH 300 Social and Political History of the Roman Empire

The Social and Political History of the Roman Empire; the Rise of Christianity.

Pre-requisite: None
Co-requisite: None

Greek & Latin Literature in Translation

GLL 191	Greek and Roman Drama
	A study of selected plays: Aeschylus, Sophocles, Euripides, Aristophanes, Menander, Plautus, Terence and Seneca (limited enrolment).
	Pre-requisite: None Co-requisite: None

Latin

LAT 120F	The Poetry of Catullus
	Selections from the work of Catullus, including both his love poems and his satiric epigrams. This course will concentrate on the literary value of Catullus' work. It will also include study of the Latin language.
	Pre-requisite: XIII LAT Co-requisite: None
LAT 123S	Cicero and Roman Oratory
	Reading of Cicero Pro Caelio. *This speech, which deals with a* cause célèbre *in the circle of Catullus, will be studied for the light which it sheds on social life at the end of the Roman Republic and to illustrate Cicero's skill as an orator. The course will also include study of the Latin language.*
	Pre-requisite: XIII LAT, LAT 120F Co-requisite: None
LAT 220E	Comedy and Epic in the Roman Republic
	Reading of a play of Plautus, a play of Terence, Catullus Peleus and Thetis, *and Horace (selected odes).*
	Pre-requisite: Old LAT 100/120F & 123S Co-requisite: None

Computer Science

See Mathematics

Economics

See Political Economy

English

ENG 100 Forms of Twentieth-Century Literature

Five of the following novels: Conrad, Heart of Darkness; *Lawrence,* Sons and Lovers; *Woolf,* To the Lighthouse; *Hemingway,* Farewell to Arms; *Fitzgerald,* The Great Gatsby; *Waugh,* A Handful of Dust; *Faulkner,* Light in August; *a more recent novel to be selected.*
Five of the following plays: Shaw, Major Barbara; *O'Casey,* Juno and the Paycock; *O'Neill,* Long Day's Journey into Night; *Williams,* The Glass Menagerie; *Fry,* The Lady's not for Burning; *Osborne,* Luther; *Pinter,* The Caretaker; *Albee,* Who's Afraid of Virginia Woolf?; *a play to be selected.*
Three of the following poets: Yeats, Frost, Eliot, Williams, Auden, Dylan Thomas, Stevens, a younger poet.
Additional works at the discretion of the instructor.

Pre-requisite: None
Co-requisite: None

ENG 101 Shakespeare

Special study of Romeo and Juliet, A Midsummer Night's Dream, Richard II, Henry IV, *Parts* I *and* II, Twelfth Night, Measure for Measure, Hamlet, Antony and Cleopatra, The Tempest. *Other plays may be added at the discretion of the instructor.*

Pre-requisite: None
Co-requisite: None

PNG 102 American Literature

Three of the following poets: Edward Taylor, Poe, Whitman, Dickinson, Frost, Stevens, Pound, Eliot, Hart Crane, Robert Lowell.
Four of the following novels: a novel of Cooper; Hawthorne, The Scarlet Letter; *Melville,* Moby Dick; *Twain,* Adventures of Huckleberry Finn; *James,* The Portrait of a Lady; *a novel of Howells; a novel of Stephen Crane; a novel of Dreiser; a novel of Faulkner; Ellison,* Invisible Man.
Three of the following: Bradford, Of Plymouth Plantation; *Crevecoeur,* Letters from an American Farmer; *Franklin,* Autobiography; *Irving,* A History of New York; *Dana,*

Two Years before the Mast; *Parkman,* The Oregon Trail; *Thoreau,* Walden; *Twain,* Life on the Mississippi; *Adams,* The Education of Henry Adams; *Cummings,* The Enormous Room; *Wolfe,* Look Homeward, Angel; *Baldwin,* Notes of a Native Son.
Additional works at the discretion of the instructor.

Pre-requisite: None
Co-requisite: None

ENG 202 English Poetry

A study of various forms, themes, styles and traditions.

Pre-requisite: None
Co-requisite: None

ENG 205 Varieties of Drama

A study of selected plays.

Pre-requisite: None
Co-requisite: None

ENG 206 Varieties of Prose Fiction

A study of selected narratives in prose.

Pre-requisite: None
Co-requisite: None

ENG 210 Chaucer

A study of Troilus and Criseyde, *selections from* The Canterbury Tales *and further selections from Chaucer's works.*

Pre-requisite: None
Co-requisite: None

ENG 300 English Literature from Tennyson to the Present

Selections from Tennyson, Browning, Yeats, and T. S. Eliot. Selections from Arnold and two of the following: D. G. Rossetti, Christina Rossetti, Morris, Swinburne, Meredith, Hopkins, Hardy. Selections from Whitman and two of the following: Dickinson, Frost, Pound, Wallace Stevens, Auden, Dylan Thomas (Representative Poetry, Vol. III *and texts to be specified by the instructor).*
A novel by Dickens; a novel by George Eliot. Two novels chosen from the works of two of the following:

James, Conrad, Forster, Joyce, Lawrence, Fitzgerald, Faulkner, and Greene. Two of the following: Carlyle, Sartor Resartus; Newman, On the Scope and Nature of University Education, *Lectures* IV *to* VII; *J. S. Mill,* On Liberty; *Arnold,* Culture and Anarchy. *Two of the following: Shaw,* Saint Joan; *O'Casey,* Juno and the Paycock; *O'Neill,* Long Day's Journey into Night; *Beckett,* Waiting for Godot; *Williams,* The Glass Menagerie.

Pre-requisite: None
Co-requisite: None

ENG 301 Poetry and Prose

At least six of the following: selections from Chaucer, The Canterbury Tales; *Milton,* Paradise Lost; *Pope,* Essay on Man or The Dunciad; *Shelley,* Prometheus Unbound; *Wordsworth,* The Prelude; *Tennyson,* Maud *or* Idylls of the King; *Meredith,* Modern Love; *Eliot,* Four Quartets; *one recent poem to be specified by the instructor. At least eight critics, to include the following: Aristotle; Sidney; two of Dryden, Pope, Johnson; Coleridge; Arnold; Eliot. Practical criticism. May not be given in 1969–70.*

Pre-requisite: None
Co-requisite: None

French

FRE 100 French Literature for Non-Specialists

Based on a mode, e.g. 'satirical literature' or 'tragic literature' or 'comedy' with appropriate texts. Readings in French. Lectures and Tutorials in English (or in French, if individual sections so desire). Designed for students in other disciplines who might find French Literature useful and interesting.

Pre-requisite: Reading knowledge of French
Co-requisite: None

FRE 120 Preparation for University French Studies

French language and literature with emphasis on language training. One hour per week devoted to study and discussion of literary texts. Two hours per week *of language practice, including phonetics, grammar, composition, plus language laboratory work.*

Pre-requisite: XIII FRE
Co-requisite: None

FRE 140 Studies in Modern French Literature

The study of specific texts in 19th and 20th Century poetry, novel and drama. A practical introduction to techniques of literary criticism and analysis.

Pre-requisite: XIII FRE
Co-requisite: FRE 120

FRE 142 Man and Society in Fiction

Studies in contemporary French and French-Canadian novel. To provide an introduction to critical studies in fiction, with emphasis on works with social significance.

Pre-requisite: XIII FRE
Co-requisite: FRE 120

FRE 200 French Literature for Non-Specialists

Continuation of FRE *100.*

Pre-requisite: FRE 100
Co-requisite: None

FRE 220 The Classical Current

Specific texts studied dealing with origins, principal manifestations, and prolongations of the current. With emphasis on the main period associated with the current.

Pre-requisite: FRE 120/Old FRE 100
Co-requisite: None

FRE 222 The Philosophical Current

Major trends in French philosophical thought studied with specific texts. Principal emphasis on main period associated with the current.

Pre-requisite: FRE 120/Old FRE 100
Co-requisite: None

FRE 252 Drama from 1600 to 1800

The study of French Theatre from 1600 to 1800 with analysis in depth of chefs-d'oeuvre *taken from the period. Designed also to fit these* chefs-d'oeuvre *into the larger context of the evolution of French theatre and society.*

Pre-requisite: FRE 120/Old FRE 100
Co-requisite: None

FRE 262 Drama from 1600 to 1800

The study of specific texts within the period 1600 to 1800.

Pre-requisite: FRE 120/Old FRE 100
Co-requisite: None

FRE 271 Language Practice

A continuation of French 120, including grammar, composition, oral, vocabulary, pattern drills, plus language laboratory work.

Pre-requisite: FRE 120/Old FRE 100
Co-requisite: None

FRE 274 Introduction to French Stylistics

Being essentially the study of stylistic devices used in contemporary French.

Pre-requisite: FRE 120/Old FRE 100
Co-requisite: None

FRE 275 The Structure of Modern French

The study of the phonological, morphological and syntactical systems of contemporary French.

Pre-requisite: FRE 120/Old FRE 100
Co-requisite: None

FRE 290 Independent Study

Individual work with a member of the staff on a literary or language topic of common interest, including readings, discussions, papers.

Pre-requisite: FRE 120/Old FRE 100
Co-requisite: None

FRE 300 Nineteenth and Twentieth Century French Literature

Study of the outstanding French novels of the nineteenth and twentieth century. Prescribed texts, plus supplementary readings and composition figure in the course.

Pre-requisite: Old FRE 200
Co-requisite: None

FRE 301 Modern French Drama

Study of prescribed texts in modern French theatre. Study of stylistics and oral composition are incorporated into the course.

Pre-requisite: Old FRE 201
Co-requisite: None

Geography

GGR 100FE Introductory Geography

An introduction to modern geography emphasizing its physical aspects. Intended to provide some basic concepts for those whose previous experience with geography has given an inadequate preparation for University Geography.

Pre-requisite: None
Co-requisite: None

GGR 101FE Introduction to Geomorphology

Gross morphology and clima-geomorphic regions of the earth. Rates of regional denudation in relation to climate, relief and rates of uplift. Qualitative introduction to the main types of erosional, transportational and depositional processes and their associated landforms. Weathering and mass movements. Fluvial processes. Glacial landforms. Marine landforms. Wind action. Introduction to some basic concepts of geomorphology such as relations of 'structure, process and stage', magnitude and frequency concept of erosion, and climate and landforms.

Pre-requisite: Grade XIII GGR
Co-requisite: None

GGR 102SE Climatology

Atmospheric variables in time and space, fluxes and balances of radiation, heat and moisture; climatic regions. Relations of plants and animals to climatic phenomena.

Pre-requisite: Grade 11 GGR/Old GGR 100
Co-requisite: None

GGR 103FE Economic Geography I

An introduction to the relationships between the environment and productive human activities. Distribution patterns of production, trade and transportation, and consumption.

Pre-requisite: None
Co-requisite: None

GGR 104SE Economic Geography II

Some elementary principles of economic location illustrated by specific examples from the fields of agriculture, manufacturing, trade and service industries.

Pre-requisite: GGR 103FE
Co-requisite: None

GGR 105FE Cultural Geography I

A study of the relations between human culture and the physical environment. Emphasizes the development of knowledge and techniques of resource utilization.

Pre-requisite: None
Co-requisite: None

GGR 106SE Cultural Geography II

Contemporary patterns and problems of cultural phenomena. Population geography. Environmental pollution. Deterioration and conservation of the resource base.

Pre-requisite: GGR 105FE/permission of instructor.
Co-requisite: None

GGR 200FE Geographical Methods

Field and laboratory techniques in human and physical geography with an introduction to, and simple application of, statistical sampling analysis. Sources of data will include Census Returns, *topographical maps, aerial photographs and field measurements made by the students. Emphasis will be placed on the essential interrelations of problem statement, data collection, analysis and interpretation.*

Pre-requisite: Old GGR 100
Co-requisite: None

GGR 201SE Problems of Resource Development

A series of specific studies in the problems of resource utilization under various environmental conditions.

Pre-requisite: Old GGR 100/permission of instructor.
Co-requisite: None

GGR 300FE North America I

Studies of specific geographical problems in Canada.

Pre-requisite: Old GGR 200/permission of instructor.
Co-requisite: None

GGR 301SE North America II

Problems of regional geography in North America with emphasis upon the U.S.A. *and upon Canada-*U.S. *relations.*

Pre-requisite: GGR 300FE/permission of instructor.
Co-requisite: None

GGR 302FE Urban Geography I

An outline of the principles of urban geography.

Pre-requisite: Old GGR 200/permission of instructor.
Co-requisite: None

GGR 303SE Urban Geography II

A series of studies of specific problems in Urban Geography.

Pre-requisite: GGR 302FE
Co-requisite: None

Note: Two courses under Physics.

PHY 225FE Geotectonics and Sea Floor Spreading

PHY 226SE Introduction to the New Geonomy

Geology

GLG 100 Introduction to Geology

A terminal course that examines the regional processes that have operated in more recent geological time to develop the earth as we know it today. Basic elements of the following topics will be introduced in the laboratory to amplify the lectures: compositions of rocks and minerals, classification and distribution of fossils, evolution, ancient climates, glaciology, volcanology, geomorphology, sedimentation, mountain building, crushed structure and earthquakes.

Pre-requisite: None
Co-requisite: None

Note: Two courses under Physics.

PHY 225FE Geotectonics and Sea Floor Spreading

PHY 226SE Introduction to the New Geonomy

German

GER 105 Reading German

Training in reading scholarly German for students for whom this work is recommended or required by other Departments or Faculties.

Pre-requisite: None
Co-requisite: None

GER 121 Modern German Literature

Selected works of modern German Literature with special emphasis on the twentieth century.

Pre-requisite: XIII GER/permission of Instructor
Co-requisite: None

GER 140 Language Practice

An intensive course in learning to write and speak German.

Pre-requisite: XIII GER/permission of Instructor
Co-requisite: GER 120/121

GER 240 German Literature of the Enlightenment and Storm and Stress

A study of the works of major German 'classical' authors, with concentration on Lessing, Goethe, and Schiller; the language work of the First Year is continued.

Pre-requisite: GER 120/121 (Old GER 100)
Co-requisite: None

GER 300 Advanced Studies in Major German Authors

This course concentrates on Goethe: FAUST II *and works of other major German writers including Heine and Brecht. The language work of the Second Year is continued.*

Pre-requisite: GER 240 (Old GER 200)
Co-requisite: None

Greek
Greek & Roman History
Greek & Latin Literature in Translation

See Classics

History

HIS 100E Modern Europe

Europe from 1400 to 1945. A general survey of the major developments in European history from the Renaissance through World War II. *In the first term to 1789, the main emphasis is placed upon Continental Europe; in the second term the geographic scope is enlarged somewhat for the sake of an adequate discussion of the two world wars.*

Pre-requisite: None
Co-requisite: None

HPS 100 History and Philosophy of Science

The development and influence of science on contemporary society from earliest times to the present; not only of a history of scientific discovery, but also a history of the philosophic framework of the science. Interaction between physical science and political thought, biological science and social thought, and technology and science will be drawn in historical context. May not be given in 1969–70.

Pre-requisite: None
Co-requisite: None

HIS 200E History of the United States 1763–1968

An introduction to American history, from the movement for independence into the cold war. Primary attention devoted to political developments, but economic, social and intellectual factors will also be examined.

Pre-requisite: None
Co-requisite: None

HIS 201E 19th Century Britain

The major themes of British history from the late 18th century: the emergence of industrial society, the fate of aristocracy, religion, cultural and intellectual change; external relations, constitutional development and political history.

Pre-requisite: None
Co-requisite: None

HIS 202E Modern America

Basically 20th century. A comprehensive survey and analysis of the political, economic and social institutions, and foreign policy commitments of the United States, 1890–1968.

Pre-requisite: None
Co-requisite: Permission of Instructor.

HIS 300 Canada

A survey of the political, social and economic history of Canada, topically treated, from 1663 to 1967.

Pre-requisite: None
Co-requisite: None

HIS 301 A Second Special Course in Canadian or European History

A specialized field in Canadian or European history.

Pre-requisite: None
Co-requisite: None

HIS 302E Social History of the 19th Century

A survey of the United States from the Age of Jackson to the Age of McKinley. May not be given in 1969–70.

Pre-requisite: None
Co-requisite: None

ITALIAN AND HISPANIC STUDIES

Italian

ITA 100	Beginning Italian *Grammar, translation, oral work in 3 hours of classroom instruction and an additional 2 hours of laboratory work designed to implement and complement the classroom work with a total objective of balanced oral-aural and traditional-written capabilities.* Pre-requisite: None Co-requisite: None
ITA 140E	The Italian Tradition *A survey of Italian culture including literature, music, art, social customs, which will try to give an over-all cultural outlook on Italy by means of texts (bilingual) and visual means. To be given in English and open to all.* Pre-requisite: None Co-requisite: None
ITA 200E	Advanced Italian *A more thorough examination of grammar and development of greater skills in translation and composition to achieve a wider and deeper capability in Italian usage. Two hours of classroom and an additional 1 hour of laboratory which will complement the use of the language in class. Open to matriculants and required for specialists.* Pre-requisite: XIII ITA/Old ITA 100 Co-requisite: None
ITA 300	Introduction to Italian Literature *This will attempt by close reading and discussion of representative authors (Dante, Petrarch, Boccaccio, Leopardi, Vittorini, etc.) types, periods and styles of Italian literature to develop the capability of analysis and enjoyment of the literature and, thus, provide literary tools for future study.* Pre-requisite: Old ITA 200 Co-requisite: None

ITA 301 The Modern View

A survey of modern Italian literature: the novel, drama, poetry and the attempt to relate the literature to its historical-social background.

Pre-requisite: Old ITA 100
Co-requisite: ITA 200E

ITA 320 Erato (The Love Lyric)

The Italian love lyric from its beginning through Petrarch and the 16th century surge to Marino and his fellows.

Pre-requisite: Old ITA 200
Co-requisite: None

Spanish

SPA 100E Beginning Spanish

This is a course designed for those who have had no previous background in Spanish. By the end of the year students should have acquired sufficient knowledge of the written and spoken language to be able to specialize in Spanish if they wish. Emphasis will be placed throughout on the oral side of the work both in class and in the language laboratory.

Pre-requisite: None
Co-requisite: None

SPA 120E Intermediate Grammar and Composition

In this intermediate level course the student reinforces and refines his knowledge of Spanish structure to gain a greater variety in expression and a broader comprehension of the language. Two hours will be spent in classroom work and one hour in the language laboratory.

Pre-requisite: Old SPA 100/XIII SPA
Co-requisite: None

SPA 140E Spanish Civilization and Culture

This two-hour course in English will present an over-all view of the activities of the Spanish people from *the early settlers of the peninsula to the current scene. Using the history of the country as a basic frame, the course will deal with the main currents of thought and the major accomplishments in literature, art, architecture and music. Visual presentations will frequently be used. This course should prove useful not only to those students studying Spanish but to those interested in History, Art, and several other disciplines.*

Pre-requisite: None
Co-requisite: None

SPA 160E Spanish American Civilization and Culture

This course, conducted in English, is designed to give the student an understanding not only of the unique civilization of Latin America, but also of the serious problems, social and economic, which presently confront our neighbours to the south. An attempt will be made to deal at least briefly with all of the major countries in Central America, the Caribbean and South America.

Pre-requisite: None
Co-requisite: None

SPA 200SE Conversation and Language Practice

This is an opportunity for those who wish to speak Spanish to become acquainted with idiomatic speech. Through general discussion of everyday topics including newspaper articles and excerpts from magazines it is hoped the student will acquire greater fluency in the language. Classes will be conducted in a variety of ways so that as many aspects as possible of spoken Spanish are covered, from general conversation to short talks and reports on subjects of interest to the group.

Pre-requisite: Old SPA 100/XIII SPA
Fall term of some 2nd year course.
Co-requisite: None

SPA 220E Introduction to Literature and Literary Methods

This course, to be conducted as much as possible in Spanish, will attempt to give the student a usable methodology for examining and understanding literary *works written in Spanish. The literature is, of course, the finest flower of any language. It is fair to say that no student can possibly speak or write a language well unless he is familiar with the cultural environment which developed it and uses it today. It is hoped that this course will provide the groundwork whereby the student can familiarize himself with this environment.*

Pre-requisite: Old SPA 100/XIII SPA
Co-requisite: None

SPA 240E General Survey of Peninsular Literature

This is not intended for those who wish to specialize in Spanish but for those who would like a general knowledge of Spanish Literature, especially the modern period. Readings and lectures will therefore be planned so that more time is spent studying the works and thought of twentieth century writers.

Pre-requisite: Old SPA 100/XIII SPA
Co-requisite: None

SPA 241FE Spanish Phonetics

In this course the student will study the sounds of the Spanish language by means of the system devised by Navarro-Tomas. Through the use of phonetic script and symbols he will learn to differentiate between analogous sounds in the language and thereby improve both his oral and aural skills. Some attention will also be given to regional problems and dialects of Spanish.

Pre-requisite: Old SPA 100/XIII SPA
Co-requisite: None

SPA 260FE History of Spain

The aim of this course is to give a general idea of the history of Spain bearing in mind the needs of students of literature. Since lectures, seminars and discussion will be mainly conducted in Spanish a knowledge of the language is essential. Topics will be selected from the early Middle Ages to the present day and their relation to important literary trends will be indicated.

Pre-requisite: Old SPA 100/XIII SPA
Co-requisite: None

SPA 300 Survey of Spanish Literature

This course studies Spanish literature, along with attendant cultural phenomena, from its earliest manifestations down to the 20th century. Students read both excerpts of some representative works plus complete renditions of others. Classroom discussions attempt to clarify the material and relate it to the continuing cultural tradition. The course is offered in Spanish.

Pre-requisite: Old SPA 200
Co-requisite: None

SPA 301 Spanish Literature of the Golden Age

One of Spain's most interesting and richest periods, comprising the 16th and 17th centuries. Attention will be given to the gradual modification of Italian Renaissance influences through the undercurrent of persisting national traditions. Original texts – poetry, drama and novel – will be studied as reflecting the society of the age and its changing values. The course will be given partially in Spanish.

Pre-requisite: Old SPA 201
Co-requisite: None

Latin

See Classics

MATHEMATICS

Applied Mathematics

APM 246SE Applied Mathematics

The basic principles of applied mathematics as related to topics chosen from particle and rigid body dynamics, from hydrodynamics and from electromagnetics and gravitational potential theory.

Pre-requisite: MAT 244F
Co-requisite: None

Computer Science

CSC 108Y Introduction to Computer Science

Algorithms and flow charts. An introduction to stored-programme computers and Fortran programming. Elementary applications in data processing, scientific calculations, non-numerical problems, and simulations.

Pre-requisite: None
Co-requisite: None

Mathematics

MAT 110FE Calculus I

This course is intended to cover, in the first term, the material of MAT A *and further topics in calculus.*

Pre-requisite: None
Co-requisite: None

MAT 120SE Finite Mathematics

Finite Mathematics.

Pre-requisite: XIII MAT A/110FE
Co-requisite: None

MAT 135 Calculus with Linear Algebra

Differentiation. Mean value theorem. Antidifferentiation. Fundamental theorem of Calculus. Integration Methods. Differential Equations. Vectors in 2, 3 and n dimensions. The simplex method. Matrices and linear transformations. Multivariate calculus. Applications.

Pre-requisite: XIII MAT A
Co-requisite: None

MAT 140E Abstract Mathematics I

Material chosen from set theory, topology and abstract algebra.

Pre-requisite: XIII MAT A & B
Co-requisite: None

MAT 235	Calculus II
	A continuation of Mathematics 135 to include sequences and series, rigorous proofs of theorems of calculus.
	Pre-requisite: MAT 135 (Old MAT 100/110) Co-requisite: None
MAT 244F	Differential Equations
	First order differential equations. Linear operators, difference and differential equations.
	Pre-requisite: MAT 135 (Old MAT 100/110) Co-requisite: None
MAT 325	Geometry
	Selected topics from geometry, algebra and logic.
	Pre-requisite: MAT 140E (Old MAT 211/300) Co-requisite: None
MAT 330	Analysis
	Topics in real and complex variable theory and differential equations.
	Pre-requisite: MAT 235 (Old MAT 200/210) Co-requisite: None

Statistics

STA 232	Probability and Statistics
	Sample spaces, probability distribution. Random variables. Unbiased statistics. Tests of hypotheses. Confidence intervals. Regression. Analysis of variance. Sampling.
	Pre-requisite: MAT 135/110FE & 120SE (Old 100/110) Co-requisite: None

Philosophy

PHL 100	Introduction to Philosophy
	An introduction to a wide range of representative and important philosophical problems and topics, including the following: whether moral standards are relative; whether human beings are free or determined; the nature and cogency of various arguments for the

existence of God. Topics in semantics, formal logic and scientific method will also be discussed with a view to avoiding certain common errors in reasoning.

Pre-requisite: None
Co-requisite: None

PHL 200F Introduction to Ethics

An introduction to some main problems in moral philosophy.

Pre-requisite: None
Co-requisite: None

PHL 201S Contemporary Ethics

An investigation of current trends and problems in the fields of moral philosophy and metaethical theory.

Pre-requisite: PHL 200F
Co-requisite: None

PHL 202S Political Philosophy

An introduction to problems in the history of political theory.

Pre-requisite: PHL 200F
Co-requisite: None

PHL 203F Philosophy of Religion

Pre-requisite: None
Co-requisite: None

PHL 204F Aesthetics

Types of aesthetic theory and problems in the philosophy of art.

Pre-requisite: None
Co-requisite: None

PHL 205S Philosophy in Literature

Pre-requisite: None
Co-requisite: None

PHL 206F Modern Symbolic Logic

Pre-requisite: None
Co-requisite: None

PHL 207S Philosophical Uses of Logic

A study of the application of the techniques of modern symbolic logic to selected problems in philosophy.

Pre-requisite: PHL 206F
Co-requisite: None

PHL 208S Inductive Logic and Scientific Method

Pre-requisite: PHL 206F
Co-requisite: None

PHL 209F Plato

A systematic study of Plato's central doctrines.

Pre-requisite: None
Co-requisite: None

PHL 210S Aristotle

A systematic study of Aristotle's central doctrines.

Pre-requisite: None
Co-requisite: None

PHL 211F Descartes and Locke

A systematic study of the central philosophic problems of Descartes and Locke.

Pre-requisite: None
Co-requisite: None

PHL 212S Berkeley and Hume

A systematic study of the central philosophic problems of Berkeley and Hume.

Pre-requisite: PHL 211F
Co-requisite: None

PHL 213S Existentialism

Pre-requisite: One course in Philosophy
Co-requisite: None

Physical Science
See Physics

Physics

PSC 100FE The Concepts and Methodology of Physical Science

An introduction to the basic theories, principles and methods of physical science based on a detailed examination of important historical developments. The course is designed to meet the needs of the student of either Humanities or Social Sciences.

Pre-requisite: None
Co-requisite: None

PHY 101SE The Basic Principles of Physics

This course is intended as a terminal course for students of the Humanities. A treatment of selected topics in physics designed to illustrate the basic principles of science discussed in Physical Science 100 and their application.

Pre-requisite: PSC 100FE
Co-requisite: None

PHY 110 Introductory Physics for Science Students

An introductory course for specialists in physics, students majoring in biological science or Arts students wishing to do calculus and physics concurrently. The subject material includes elementary mechanics, properties of matter, electricity and magnetism, light, atomic physics, special relativity. Provides a survey of many fields of physics from the modern point of view.

Pre-requisite: XIII PHY, XIII MAT
Co-requisite: First course in calculus

PHY 211E Thermal Physics

Thermodynamics and an introduction to statistical physics.

Pre-requisite: PHY 230E (Old 210)
Co-requisite: None

PHY 223E Electronics

An introduction to electronics and to modern applications of transistor and tube circuitry to various areas of scientific investigation.

Pre-requisite: None
Co-requisite: None

PHY 225FE Geotectonics and Sea-Floor Spreading

Recent discoveries show that reversals in the geomagnetic field have imprinted ocean basins with growth lines substantiating the hypothesis of continental drift. The course will describe new ideas about the behaviour of the earth including growth of ocean basins, changes in sea-level, mountain building and movement of climatic zones.

Pre-requisite: None
Co-requisite: None

PHY 226SE Introduction to the New Geonomy

The discovery of a precise hypothesis of continental displacement makes possible and necessary the study of all continents and ocean basins together. This introduction shows how geology, geomorphology, and geophysics must be combined to give even a preliminary outline of how continents repeatedly joined and separated during the earth's history.

Pre-requisite: PHY 225FE
Co-requisite: None

PHY 230E Advanced Electricity and Magnetism and Physical Optics

This course is mandatory for those students wishing to specialize in physics. It may also be used as a Second Year terminal course for biology students, or students of the Humanities. Physics 230E is a vector calculus treatment of electricity and magnetism, an introduction to wave theory and physical optics.

Pre-requisite: Old PHY 110
Co-requisite: A second course in calculus

PHY 310 Atomic and Nuclear Physics

A study of related concepts taken from atomic and nuclear physics – elementary quantum mechanics. Atomic and nuclear structure, energy levels, spectra and decay schemes.

Pre-requisite: Old PHY 210
Co-requisite: Applied Maths 246SE/PHY 211E

PHY 311 Introductory Classical & Quantum Mechanics

Pre-requisite: PHY 110
Co-requisite: PHY 230E

POLITICAL ECONOMY

Economics

ECO 100 Introduction to Economics

A survey course with emphasis on the comprehension of the basic concepts in macro and micro economic theory and international trade. The techniques economists use to analyze problems are also stressed. The concepts introduced will include: national income and its determination; monetary and fiscal techniques; business cycle theory; the derivation and use of supply and demand schedules; the theory of the firm and the principles of comparative advantage and tariff protection.

Pre-requisite: None
Co-requisite: None

ECO 206 North American Economic History

This course examines, through the use of rigorous economic concepts, the growth patterns of the United States and Canada. The theme of the course is an attempt to explain the lags in Canadian development, as compared to the American model.

Pre-requisite: None
Co-requisite: None

ECO 207 Economic History of Europe

An analysis of the patterns of economic transformation in Europe from the Roman Empire to the Industrial Revolution with emphasis on intertemporal causal relationships. May not be offered in 1969–70.

Pre-requisite: None
Co-requisite: None

ECO 225E Intermediate Economic Theory

This course provides a continuation of macro and micro economic theory with the design to develop a sufficient theoretical basis that will permit students to undertake more specialized courses in applied theory and policy The full term introduces further discussion and a critical assessment of the elements of Keynesian economics. The *second term analyzes the theory of imperfect competition and includes a critique of the traditional theory of the firm.*

Pre-requisite: Old ECO 100
Co-requisite: None

ECO 323 Industrial Organization and Public Policy

Government regulates most aspects of business life. Certain behaviour is outlawed (price fixing). Even profits are touched (taxes, guidelines). The course analyzes through the use of rigorous economic models the justification and the impact of government regulations.

Pre-requisite: ECO 225E (Old ECO 202)
Co-requisite: None

ECO 328 International Economics and Policy

An analysis of the nature, effects and policy implications of international trade and finance. The theories of comparative costs and reciprocal demand; factor reward equalization; balance of payments and foreign exchanges; international tariffs; liquidity; customs unions; and relevant topics will be discussed and related to current problems in international economic affairs.

Pre-requisite: ECO 225E/206 (Old ECO 202/200)
Co-requisite: None

ECO 336 Public Finance

An analysis of the revenue and expenditure patterns of federal and regional governments in Canada and other nations; an investigation of the comparative merits of different types of taxation, and the rationale for the provision of social goods by kind and degree.

May not be offered in 1969–70.
Pre-requisite: ECO 225 (old ECO 202)
Co-requisite: None

Political Science

POL 100 Introduction to Canadian Politics

A study of the political process in Canada, including Canadian political culture, the formation of public *opinion, political behaviour, political parties, the constitution, federalism, French Canada, federal-provincial financial relations, and the structure and functioning of political institutions, such as the cabinet, parliament, the judiciary, and the public service.*

Pre-requisite: None
Co-requisite: None

POL 200 Political Theory

The development of political thought from the dialogues of Plato to the controversies surrounding the French revolution. Among the theorists examined are Aristotle, Machiavelli, Hobbes, Locke and Rousseau.

Pre-requisite: None
Co-requisite: None

POL 203 Politics and Government of the United States

During the first term, this course concentrates on the evolution of the American constitution with particular reference to individual rights, federalism and governmental powers. In the second term, the course deals with the actual operation of government through the workings of politics and administration; it covers executive-legislative relations, parties, pressure groups, the bureaucracy, and foreign affairs.

Pre-requisite: None
Co-requisite: None

POL 204 Politics and Government of the U.S.S.R.

An introduction to the domestic politics and foreign relations of the USSR, *with emphasis on the post-Stalin era. The initial phase will be taken up with the political history, political culture, and institutions of the* USSR, *and with a consideration of alternate approaches to the study of Soviet politics. Detailed attention will then be given to the Soviet policy process in both domestic and external affairs. Although the stress will be on internal politics, roughly a quarter of the course will be devoted to external affairs and the impact of external* *events and foreign policy considerations on the Soviet domestic scene will be emphasized throughout.*

Pre-requisite: None
Co-requisite: None

POL 306 International Relations

Pre-requisite: None
Pre-requisite: None

POL 320 Modern Political Thought

Pre-requisite: None
Pre-requisite: None

POL 328 International Organization

Pre-requisite: None
Co-requisite: POL 306

POL 430E Workshop in Political Science

A seminar for specialists in political science, with an orientation and structure dependent on the interests of available students and faculty.

Pre-requisite: POL 100
Co-requisite: None

Psychology

PSY 100 Introductory Psychology

A full year course strongly advised as pre-requisite for all other Psychology courses. Instructors in all subsequent courses will assume the student has the background knowledge provided by Psychology 100. The course surveys various areas of contemporary psychology, its methods, problems and current status.

Pre-requisite: None
Co-requisite: None

PSY 200F Statistics and Research Design I

This course will deal with basic descriptive and inferential statistics. Topics will include frequency *distributions, measures of central tendency and variability, correlation, elementary probability and simple statistical inference. Knowledge of high school algebra is assumed.*

Pre-requisite: PSY 100
Co-requisite: None

PSY 201S Statistics and Research Design II

A continuation of Psychology 200. This course will be concerned with the design of experiments and methods of statistical analysis. Topics will include chi-square, the analysis of variance, and regression analysis. Knowledge of basic statistics is assumed.

Pre-requisite: PSY 100
Co-requisite: None

PSY 203F Introduction to Social Psychology

(May NOT be taken if Psychology 204 was taken in 1968–69)

A survey of contemporary areas of research in social psychology. Areas to be considered include social perception, attitudes, interpersonal relations, group processes, and ethnic attitudes.

Pre-requisite: PSY 100
Co-requisite: None

PSY 204S Personality Development

Examination of theory and research related to personality development with emphasis on research in the self concept, need for achievement, anxiety, authoritarianism, etc.

Pre-requisite: PSY 100
Co-requisite: None

PSY 205F Differential Psychology

Genetic and environmental bases of individual differences in intelligence and personality, including consideration of developmental variables, family, sex, class and race differences.

Pre-requisite: PSY 100
Co-requisite: None

PSY 208S Sensory & Perceptual Processes

Examination of theoretical and experimental efforts aimed at understanding sensory and perceptual function. Emphasis will be placed on vision research at both the physiological and behavioural levels.

Pre-requisite: PSY 100
Co-requisite: None

PSY 209S Biological Foundation of Behaviour

The relationship of neural and biochemical information to the study of behaviour. The biological events underlying behavioural phenomena will be explored.

Pre-requisite: PSY 100
Co-requisite: None

PSY 210Y Individual Research

Laboratory work under supervision of a staff member.

Pre-requisite: PSY 100
Co-requisite: Another psychology course.

PSY 211F Motivation

An examination of theory and research devoted to the variables underlying the energizing and direction of behaviour. Both physiological and psychological motivation will be explored.

Pre-requisite: PSY 100
Co-requisite: None

PSY 212ES Animal Learning

This course will deal with the phenomena of classical and instrumental conditioning in mammals, particularly the white rat. The phenomena of acquisition, extinction, generalization, discrimination, and partial reinforcement will be examined from both an empirical and a theoretical point of view.

Pre-requisite: PSY 100
Co-requisite: None

PSY 213EF Comparative Psychology

This course will deal with both the innate and learned behavioural capacities of a variety of animals from simple one-celled organisms to man. Emphasis will be placed on understanding both the similarities and the differences in the modes of behavioural adaptation found at different phylogenetic levels.

Pre-requisite: PSY 100
Co-requisite: None

PSY 214EF Human Learning and Memory

This course will deal wth facts, theories, and methods in the study of human learning. Major emphasis will be on recent trends in the study of verbal learning, memory and verbal behaviour.

Pre-requisite: PSY 100
Co-requisite: None

PSY 215ES Developmental Psychology

The examination and analysis of organismic development. Both animal and man will be studied with reference to genetics, maturation and early experience.

Pre-requisite: PSY 100
Co-requisite: None

PSY 216EY Experimental Psychology

A full-year course devoted largely to laboratory analysis of various aspects of perception, learning and emotion. Students will perform classical experiments using one another as subjects.

Pre-requisite: PSY 100
Co-requisite: None

Sociology

Note: Sociology courses subject to change

SOC 100 Introduction to Sociology

An introduction to the basic concepts, principles and methods of sociology as a discipline for the study of society.

Pre-requisite: None
Co-requisite: None

soc 140 Contemporary Society

An examination of contemporary society through the use of basic principles and methods of sociology. This course will meet in sections. Each section will be devoted to a partial and crucial substantive aspect of contemporary society.

Pre-requisite: None
Co-requisite: None

soc 201 Methods of Social Research

Sociological Enquiry Theory and Practice. An introduction to the logic of research procedures, methods of collection, presentation and anlysis of sociological data, including an elementary consideration of the methods of quantitative research.

Pre-requisite: Old soc 100 *or*
Co-requisite: soc 100

soc 202 Structure of Inter-Personal Relations

The study of patterned relationships, social roles and social expectations which arise out of interactions among individuals.

Pre-requisite: None
Co-requisite: None

soc 205 Urban Sociology

Examines the city both as a significant development in world civilization and a working mechanism guided by contemporary policies and studies human behaviour in its multifaceted relations with the urban environment.

Pre-requisite: None
Co-requisite: None

soc 301 Sociological Theory

Pre-requisite: Old soc 100 *or*
Co-requisite: soc 100

soc 302 Sociology of the Family

Pre-requisite: Old soc 100 *or*
Co-requisite: soc 100

soc 304 Industrial Society

Pre-requisite: Old soc 100 *or*
Co-requisite: soc 100

Spanish

See Italian & Hispanic Studies

Statistics

See Mathematics

Zoology

Note: See courses under Biology

zoo 220 Animal Form and Function

The gross structure of vertebrate and invertebrate animals is considered in functional terms. Evolution provides a central theme. Lecture content is typified by such topics as 'the analysis of animal movement' and 'the structure of sensory transducers'. Descriptive and experimental laboratory exercises provide a basic understanding of animal morphology and classification.
Biology 100/120 is suggested as preparation. Old Botany 100/110 and Zoology 100/110 also serve as suggested preparation.

Pre-requisite: None
Co-requisite: None

zoo 221 Cellular and Developmental Zoology

Descriptive and experimental aspects of embryology lead to a study of cell and tissue structure in the adult organism. Both vertebrate and invertebrate animals are discussed. Laboratories emphasize the development of the chick embryo and provide a basic understanding of histology and cell ultrastructure.
Biology 100/120 is suggested as preparation. Old Botany 100/110 and Zoology 100/110 also serve as suggested preparation.

Pre-requisite: None
Co-requisite: None

zoo 323 Physiology and Development

This course emphasizes the many different approaches in the field. It comprises basic biophysics and biochemistry together with elements of cell, organ, comparative, whole animal, and environmental physiology. Topics include: (a) osmoregulation, (b) nutrition, (c) respiration, (d) endocrinology and (e) effector physiology. Biology 100/120 is suggested as preparation. Old Botany 100/110 and Zoology 100/110 also serve as suggested preparation.

Pre-requisite: None
Co-requisite: None